FINANCIAL ASSISTANCE
NOTICE OF FUNDING OPPORTUNITY

U.S. DEPARTMENT of ENERGY

ADVANCED RESEARCH PROJECTS AGENCY—ENERGY (ARPA-E)
U.S. DEPARTMENT OF ENERGY

INSPIRING GENERATIONS OF NEW INNOVATORS TO IMPACT TECHNOLOGIES IN ENERGY 2026 (IGNITE 2026)

Announcement Type: Initial Announcement
Notice of Funding Opportunity No. DE-FOA-0003624
Assistance Listing Number 81.135

NOFOs are posted on ARPA-E eXCHANGE (https://arpa-e-foa.energy.gov/), Grants.gov (http://www.grants.gov/), and FedConnect (https://www.fedconnect.net/FedConnect/). Any modifications to the NOFO are also posted to these websites. You can receive an e-mail when a modification is posted by registering with FedConnect as an interested party for this NOFO. It is recommended that you register as soon as possible after release of the NOFO to ensure that you receive timely notice of any modifications or other announcements.

Questions about this NOFO? Check the Frequently Asked Questions available at https://arpa-e.energy.gov/faqs. For questions that have not already been answered, email ARPA-E-CO@hq.doe.gov (with NOFO name and number in subject line). Problems with ARPA-E eXCHANGE? Email ExchangeHelp@hq.doe.gov (with NOFO name and number in subject line).

TABLE OF CONTENTS

BASIC INFORMATION ..... - 5 -

I. FUNDING OPPORTUNITY DESCRIPTION ..... - 6 -

A. AGENCY OVERVIEW ..... - 6 -
B. PROGRAM OVERVIEW ..... - 8 -
C. PROGRAM OBJECTIVES ..... - 8 -
D. TECHNICAL AREAS OF INTEREST ..... - 9 -
E. IGNIITE ANNUAL PROGRAM ..... - 9 -
F. STATEMENT OF RESEARCH OVERSIGHT ..... - 10 -
G. FUNDING RESTRICTIONS ..... - 10 -
1. ALLOWABLE COSTS ..... - 10 -
2. PRE-AWARD COSTS ..... - 10 -
3. PATENT COSTS ..... - 11 -
4. CONSTRUCTION ..... - 11 -
5. FOREIGN TRAVEL ..... - 11 -
6. PERFORMANCE OF WORK IN THE UNITED STATES ..... - 11 -
7. PURCHASE OF NEW EQUIPMENT ..... - 11 -
8. TECHNOLOGY TRANSFER AND OUTREACH ..... - 12 -
9. LOBBYING ..... - 12 -
10. CONFERENCE SPENDING ..... - 12 -
11. INDEPENDENT RESEARCH AND DEVELOPMENT COSTS ..... - 13 -
12. BUY AMERICA REQUIREMENT FOR PUBLIC INFRASTRUCTURE PROJECTS ..... - 13 -
13. REQUIREMENT FOR FINANCIAL PERSONNEL ..... - 14 -
14. PARTICIPANTS, COLLABORATING ORGANIZATIONS, AND CURRENT AND PENDING SUPPORT ..... - 14 -

II. ELIGIBILITY INFORMATION ..... - 15 -

A. ELIGIBLE PRINCIPAL INVESTIGATORS ..... - 15 -
B. ELIGIBLE APPLICANTS ..... - 15 -
1. FOREIGN PARTICIPATION CONSIDERATIONS ..... - 16 -
C. COMPLIANCE AND RESPONSIVENESS ..... - 16 -
D. LIMITATION ON NUMBER OF SUBMISSIONS ..... - 16 -
E. COST SHARING ..... - 16 -

III. APPLICATION CONTENTS AND FORMAT ..... - 17 -

A. GENERAL APPLICATION CONTENT REQUIREMENTS ..... - 17 -
1. MARKING OF CONFIDENTIAL INFORMATION ..... - 17 -
2. EXPORT CONTROL INFORMATION ..... - 17 -
B. CONCEPT PAPERS ..... - 18 -
1. FIRST COMPONENT: CONCEPT PAPER ..... - 18 -
2. SECOND COMPONENT: SUMMARY SLIDE ..... - 18 -
3. THIRD COMPONENT: LETTER OF SUPPORT ..... - 19 -
4. FOURTH COMPONENT: TRANSCRIPT ..... - 19 -
C. FULL APPLICATIONS ..... - 19 -
1. FIRST COMPONENT: TECHNICAL VOLUME ..... - 20 -

2. Second Component: SF-424 ..... - 20 -
3. Third Component: Budget Justification Workbook/SF-424A ..... - 20 -
4. Fourth Component: Summary for Public Release ..... - 21 -
5. Fifth Component: Summary Slide ..... - 21 -
6. Sixth Component: Business Assurances & Disclosures Form ..... - 21 -
7. Seventh Component: Biographical Sketches (Biosketch) ..... - 21 -
8. Eighth Component: Current, Pending, and Past Support ..... - 22 -
9. Ninth Component: Transparency of Foreign Connections ..... - 24 -
D. Replies to Reviewer Comments ..... - 24 -
IV. SUBMISSION REQUIREMENTS AND DEADLINES ..... - 26 -
A. Unique Entity Identifier and SAM Registration ..... - 26 -
B. Use of ARPA-E eXCHANGE ..... - 26 -
C. Required Documents Checklist and Deadlines ..... - 28 -
D. Compliance ..... - 29 -
E. Artificial Intelligence (AI) Application Use ..... - 29 -
F. Intergovernmental Review ..... - 30 -
V. APPLICATION REVIEW INFORMATION ..... - 31 -
A. Responsiveness ..... - 31 -
B. Review Criteria ..... - 31 -
1. Criteria for Concept Papers ..... - 32 -
2. Criteria for Full Applications ..... - 32 -
3. Criteria for Replies to Reviewer Comments ..... - 33 -
C. Program Policy Factors ..... - 33 -
D. Review and Selection Process ..... - 35 -
1. Concept Papers ..... - 35 -
2. Full Applications ..... - 35 -
3. Reply to Reviewer Comments ..... - 35 -
4. Pre-Selection Clarifications and "Down-Select" Process ..... - 35 -
5. Selection for Award Negotiations ..... - 36 -
E. ARPA-E Reviewers ..... - 36 -
F. ARPA-E Support Contractors ..... - 36 -
G. Risk Review ..... - 37 -
H. Due Diligence Review for Research, Technology and Economic Security - 37 -
VI. AWARD NOTICES AND AWARD TYPES ..... - 39 -
A. Award Notices ..... - 39 -
1. Rejected Submissions ..... - 39 -
2. Concept Paper Notifications ..... - 39 -
3. Full Application Notifications ..... - 39 -
A. Successful Applicants ..... - 40 -
B. Postponed Selection Determinations ..... - 40 -
C. Unsuccessful Applicants ..... - 40 -
B. Pre-Award Costs ..... - 40 -
C. Renewal Awards ..... - 41 -

D. FUNDING AGREEMENT TYPES ..... - 41 -
1. GRANTS ..... - 41 -
2. FUNDING AGREEMENTS WITH FFRDCS/DOE LABS, GOGOS, AND FEDERAL INSTRUMENTALITIES ..... - 42 -
VII. POST-AWARD REQUIREMENTS AND ADMINISTRATION ..... - 43 -
A. NATIONAL POLICY REQUIREMENTS ..... - 43 -
1. NATIONAL POLICY ASSURANCES ..... - 43 -
2. ENVIRONMENTAL IMPACT QUESTIONNAIRE ..... - 43 -
B. ADMINISTRATIVE REQUIREMENTS ..... - 43 -
1. INTELLECTUAL PROPERTY MANAGEMENT PLAN AND DATA MANAGEMENT AND SHARING PLAN ..... - 43 -
2. U.S. COMPETITIVENESS ..... - 44 -
3. NONDISCLOSURE AND CONFIDENTIALITY AGREEMENTS REPRESENTATIONS ..... - 45 -
4. INTERIM CONFLICT OF INTEREST POLICY FOR FINANCIAL ASSISTANCE ..... - 46 -
5. COMPLIANCE AUDIT REQUIREMENT ..... - 47 -
6. RESEARCH SECURITY TRAINING REQUIREMENT ..... - 47 -
7. FOREIGN COLLABORATION CONSIDERATIONS ..... - 47 -
C. REPORTING ..... - 48 -
1. FRAUD, WASTE, AND ABUSE ..... - 48 -
2. COMMERCIALIZATION PLAN AND SOFTWARE REPORTING ..... - 48 -
VIII. OTHER INFORMATION ..... - 50 -
A. TITLE TO SUBJECT INVENTIONS ..... - 50 -
B. GOVERNMENT RIGHTS IN SUBJECT INVENTIONS ..... - 51 -
1. GOVERNMENT USE LICENSE ..... - 51 -
2. MARCH-IN RIGHTS ..... - 51 -
C. RIGHTS IN TECHNICAL DATA ..... - 51 -
D. PROTECTED PERSONALLY IDENTIFIABLE INFORMATION ..... - 52 -
E. PRESIDENTIAL MEMORANDUM ON SIMPLIFYING FUNDING OF ENERGY INFRASTRUCTURE AND CRITICAL MINERAL AND MATERIAL PROJECTS ..... - 53 -
IX. GLOSSARY ..... - 54 -

BASIC INFORMATION

KEY DATES:	
Notice of Funding Opportunity (NOFO) Issue Date:	April 23, 2026
Deadline for Concept Paper Questions to ARPA-E-CO@hq.doe.gov:	5 PM ET, May 19, 2026
Submission Deadline for Concept Papers:	9:30 AM ET, May 29, 2026
Anticipated Date for Invite / Not Invite Notifications:	5 PM ET, July 14, 2026
Deadline for Full Application Questions to ARPA-E-CO@hq.doe.gov:	5 PM ET, TBD
Submission Deadline for Full Applications:	9:30 AM ET, TBD
Expected Reviewer Comment Release Date:	5 PM ET, TBD
Submission Deadline for Replies to Reviewer Comments:	5 PM ET, TBD
Anticipated Timeframe for Selection Notifications:	September 2026
Anticipated Timeframe for Award:	December 2026
Anticipated Period of Performance:	December 2026–December 2028

BASIC INFORMATION:	
Total Amount to Be Awarded	Approximately $10 million, subject to the availability of appropriated funds.
Anticipated Number and Value of Awards	ARPA-E may issue one, multiple, or no awards under this NOFO. Individual awards may not exceed $500,000. Awardees may, at the discretion of the Director of ARPA-E, be selected to receive an additional $250,000 Director's Award to continue project work started under the award.
Agency Contact Information	• Questions and answers (Q&As) about ARPA-E and this specific NOFO: http://arpa-e.energy.gov/faq. • Send other questions about the NOFO to ARPA-E-CO@hq.doe.gov. • Send questions about use of ARPA-E eXCHANGE to ExchangeHelp@hq.doe.gov. Upon the issuance of a NOFO, only the Grants Officer via ARPA-E-CO@hq.doe.gov may communicate with applicants. This "quiet period" remains in effect until ARPA-E's selection notification letters are distributed. Emails sent to other email addresses will be disregarded.

The objective of the Inspiring Generations of New Innovators to Impact Technologies in Energy (IGNIITE) 2026 program is to support early-career innovators seeking to convert disruptive and unconventional ideas into impactful new technologies across the full spectrum of energy applications. The program aims to empower these early-career scientists and engineers in becoming independent researchers and unleashing their creativity to address the urgent energy-related challenges our society currently faces. In addition to funding research efforts, IGNIITE 2026 will include dedicated events, meetings, and mentorship activities. This program will help ensure that the United States (U.S.) maintains its technological leadership in the development and deployment of advanced energy technologies.

I. FUNDING OPPORTUNITY DESCRIPTION

A. AGENCY OVERVIEW

The Advanced Research Projects Agency—Energy (ARPA-E), an organization within the Department of Energy (DOE), is chartered by Congress in the America COMPETES Act of 2007 (Public Law 110–69), as amended by the America COMPETES Reauthorization Act of 2010 (Public Law 111–358), as further amended by the Energy Act of 2020 (Public Law 116–260).

ARPA-E issues this Notice of Funding Opportunity (NOFO) under its authorizing statute codified at 42 U.S.C. § 16538.[1] The NOFO and any cooperative agreements or grants made under this NOFO are subject to 2 C.F.R. Part 200 as supplemented by 2 C.F.R. Part 910.

ARPA-E funds research on, and the development of, transformative science and technology solutions to address the energy and environmental missions of the Department. The agency focuses on technologies that can be meaningfully advanced with a modest investment over a defined period of time in order to catalyze the translation from scientific discovery to early-stage technology. For the latest news and information about ARPA-E, its programs, and the research projects currently supported, see http://arpa-e.energy.gov/.

ARPA-E funds transformational research. Existing energy technologies generally progress on established "learning curves" where refinements to a technology and the economies of scale that accrue as manufacturing and distribution develop drive improvements to the cost/performance metric in a gradual fashion. This continual improvement of a technology is important to its increased commercial deployment and is appropriately the focus of the private sector or the applied technology offices within DOE. In contrast, ARPA-E supports transformative research that has the potential to create fundamentally new learning curves. ARPA-E technology projects typically start with cost/performance estimates well above the level of an incumbent technology. Given the high risk inherent in these projects, many will fail to progress, but some may succeed in generating a new learning curve with a projected cost/performance metric that is significantly better than that of the incumbent technology. ARPA-E will provide support at the highest funding level only for submissions with significant technology risk, aggressive timetables, and careful management of associated risk.

ARPA-E funds technology with the potential to be disruptive in the marketplace. The mere creation of a new learning curve does not ensure market penetration. Rather, the ultimate value of a technology is determined by the marketplace, and impactful technologies ultimately become disruptive—that is, they are widely adopted and displace existing technologies from the marketplace or create entirely new markets. ARPA-E understands that definitive proof of market disruption takes time, particularly for energy technologies. Therefore, ARPA-E funds the development of technologies that, if technically successful, have clear disruptive potential, e.g., by demonstrating capability for manufacturing at competitive cost and deployment at scale.

[1] ARPA-E, Authorization (2026). https://arpa-e.energy.gov/about/arpa-e-at-a-glance/authorization.

ARPA-E funds applied research and development (R&D). The Office of Management and Budget defines "applied research" as an "original investigation undertaken in order to acquire new knowledge…directed primarily towards a specific practical aim or objective" and defines "experimental development" as "creative and systematic work, drawing on knowledge gained from research and practical experience, which is directed at producing new products or processes or improving existing products or processes."[2] Applicants interested in receiving financial assistance for basic research (defined by the Office of Management and Budget as "experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts") should contact the DOE's Office of Science. Office of Science national scientific user facilities (http://science.energy.gov/user-facilities/) are open to all researchers, including ARPA-E applicants and awardees. These facilities provide advanced tools of modern science including accelerators, colliders, supercomputers, light sources, and neutron sources, as well as facilities for studying the nanoworld, the environment, and the atmosphere. Projects focused on early-stage R&D for the improvement of technology along defined roadmaps may be more appropriate for support through the DOE applied energy offices, including the Office of Critical Minerals and Energy Innovation (CMEI), the Office of Hydrocarbon and Geothermal Energy, the Office of Nuclear Energy, and the Office of Electricity.

ARPA-E encourages submissions stemming from ideas that still require proof-of-concept R&D efforts as well as those for which some proof-of-concept demonstration already exists. Submissions can propose a project with the end deliverable being an extremely creative but partial solution.

[2] Office of Management & Budget, OMB Circular A-11 (2025). https://www.whitehouse.gov/wp-content/uploads/2018/06/a11_web_toc.pdf.

B. PROGRAM OVERVIEW

The IGNIITE 2026 program is designed to support a new cohort of early-career innovators to develop the most disruptive and unconventional ideas into transformative new technologies across the full spectrum of energy applications. This announcement is purposefully broad in technical scope, but eligibility is limited to early-career researchers as defined in Section II.A. In addition to research, awardees will engage with ARPA-E, fellow awardees, investors, and other government stakeholders through dedicated events, meetings, and mentorship activities.

Submissions to this solicitation must propose transformational R&D that has the potential for high impact. If successful, a project could create a new class or new trajectory for an energy technology, with the potential to substantially contribute to ARPA-E's statutory goals (see Public Law 116–260).

Awards under this program may take the form of exploratory research that provides the agency with information useful for the subsequent development of focused technology programs.

Alternatively, awards may support proof-of-concept research for a particular new technology in an area not currently supported by the agency.

C. PROGRAM OBJECTIVES

The objective of IGNIITE is to support and accelerate the transformative technical progress led by early-career scientists and engineers, a cohort that is often the source of disruptive innovations in research and technology.[3] However, peer-review processes, commonly used by local and federal funding agencies to gauge likelihood of success, favor researchers with a longer track-record in established research areas.[4] This program aims to empower early-career scientists and engineers to become independent researchers and unleash their creativity to develop disruptive energy technologies.

A second objective is to encourage these early-career innovators to focus their careers on tackling the substantial and urgent energy-related problems our society currently faces. In doing so, this NOFO will help ensure that the U.S. maintains its technological leadership in the development and deployment of advanced energy technologies. By establishing the IGNIITE

[3] F. Derrien, A. Kecskés, P.-A. Nguyen, Labor Force Demographics and Corporate Innovation, *The Review of Financial Studies*, **36** (7), 2797–2838 (2023). https://doi.org/10.1093/rfs/hhac079.

[4] Institute of Medicine. 2007. Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future. Washington, DC: The National Academies Press. https://doi.org/10.17226/11463.

program, ARPA-E joined other high-risk federal funding agencies in recognizing the importance of engaging with promising scientists and engineers early in their careers.[5]

D. TECHNICAL AREAS OF INTEREST

Applicants may propose any energy technology R&D project that addresses one or more of ARPA-E's statutory goals through the type of research described in Section I.A. Concepts spanning multiple disciplinary boundaries are encouraged if they are helpful to the effort.

Applicants are advised to assess whether their proposed technologies are aligned with the DOE's current areas of interest. Those areas include, but are not limited to:[6]

- Energy supply chain security (to include critical minerals)
- Advanced nuclear (to include fusion, fission)
- Geothermal
- Grid reliability and security
- American manufacturing competitiveness

To organize the submissions to this NOFO for the purposes of merit review, ARPA-E requires that each submission identify a primary Technical Category for the proposed technology from the list automatically provided in eXCHANGE when starting an application.

E. IGNIITE ANNUAL PROGRAM

Awardees will be required to participate in the ARPA-E IGNIITE Annual Program. The Annual Program for IGNIITE 2026 awardees will consist of a one-week session in Year 1 of the project and a one-week session in Year 2 of the project, both in Washington, D.C. Applicants will need to budget up to $2,500 per year for this travel in their submission.

The Annual Program will consist of:

- IGNIITE annual review meeting at ARPA-E headquarters
- Training sessions (e.g., proposal writing, project management, public speaking, pitching, life cycle assessment methodology, technology transfer and outreach)
- Stakeholder engagement (e.g., federal funding agencies, Congress, private sector investors)
- Opportunities for interactions with ARPA-E Program Directors, Technology-to-Market Advisors, and Fellows, as well as with other IGNIITE awardees

[5] E.g., Defense Advanced Research Projects Agency Young Faculty Award, National Science Foundation CAREER, DOE Early Career Research Program, Office of Naval Research Young Investigator Program.

[6] U.S. DOE. (2025). Secretary Wright Acts to "Unleash Golden Era of American Energy Dominance." https://www.energy.gov/articles/secretary-wright-acts-unleash-golden-era-american-energy-dominance.

F. STATEMENT OF RESEARCH OVERSIGHT

ARPA-E will oversee the projects from inception to completion. For the purposes of an ARPA-E project funded under this NOFO, oversight means:

- ARPA-E may address the conduct or performance of project activities.
- During award negotiations, ARPA-E Program Directors and recipients establish a schedule of milestones and deliverables.
- Recipients document the achievement of these milestones and deliverables in quarterly technical and financial progress reports, which are reviewed and evaluated by ARPA-E Program Directors.
- ARPA-E Program Directors may visit the recipient(s) and hold periodic meetings, conference calls, and webinars as needed.
- IGNIITE award recipients will attend an Annual Program as described in Section I.E.
- Recipients are required to comply with agency-specific and programmatic requirements.
- As appropriate, ARPA-E works closely with recipients to facilitate and expedite the deployment of ARPA-E-funded technologies to market.
- ARPA-E works with other government agencies and nonprofits to provide mentoring and networking opportunities for recipients.
- ARPA-E organizes and sponsors events to educate recipients about key barriers to the deployment of their ARPA-E-funded technologies. In addition, ARPA-E establishes collaborations with private and public entities to provide continued support for the development and deployment of ARPA-E-funded technologies.

G. FUNDING RESTRICTIONS

1. ALLOWABLE COSTS

All expenditures must be allowable, allocable, and reasonable in accordance with the applicable Federal cost principles. Under 2 C.F.R. § 910.352, the cost principles in the Federal Acquisition Regulations (48 C.F.R. § 31.2) apply to for-profit entities. The cost principles contained in 2 C.F.R. Part 200 Subpart E apply to all entities other than for-profits.

2. PRE-AWARD COSTS

ARPA-E will not reimburse any pre-award costs incurred by applicants before they are selected for award negotiations. Please refer to Section VI.A of the NOFO for guidance on award notices.

Upon selection for award negotiations, applicants may incur pre-award costs at their own risk, consistent with the requirements in 2 C.F.R. Part 200, as modified by 2 C.F.R. Part 910, and other Federal laws and regulations. All submitted budgets are subject to change and are typically reworked during award negotiations. ARPA-E is under no obligation to reimburse pre-award costs if, for any reason, the applicant does not receive an award, the award is made for a lesser amount than expected, or if costs incurred are not allowable, allocable, or reasonable.

3. PATENT COSTS

For Subject Inventions disclosed to DOE under an award, ARPA-E will reimburse the recipient—in addition to allowable costs associated with Subject Invention disclosures— up to $30,000 of expenditures for filing and prosecution of U.S. patent applications, including international applications (PCT application) that are submitted to the U.S. Patent and Trademark Office (USPTO).

The recipient may request a waiver of the $30,000 cap. Note that patent costs are considered to be Technology Transfer & Outreach (TT&O) costs (see Section I.G.8 of the NOFO below) and should be requested as such.

4. CONSTRUCTION

ARPA-E generally does not fund projects that involve major construction. Recipients are required to obtain written authorization from the Grants Officer before incurring any major construction costs.

5. FOREIGN TRAVEL

ARPA-E generally does not fund projects that involve foreign travel. Recipients are required to obtain written authorization from the ARPA-E Program Director before incurring any foreign travel costs and provide trip reports with their reimbursement requests.

6. PERFORMANCE OF WORK IN THE UNITED STATES

ARPA-E requires all work under ARPA-E funding agreements to be performed in the U.S. However, applicants may request a waiver of this requirement where their project would materially benefit from, or otherwise requires, certain work to be performed overseas.

Applicants seeking this waiver must include an explicit request in the Business Assurances & Disclosures Form. Such waivers are granted where ARPA-E determines there is a demonstrated need.

7. PURCHASE OF NEW EQUIPMENT

All equipment purchased under ARPA-E funding agreements must be made or manufactured in the U.S., to the maximum extent practicable. This requirement does not apply to used or leased equipment. The recipients are required to notify the ARPA-E Grants Officer reasonably in advance of purchasing any equipment that is not made or manufactured in the U.S. with a total acquisition cost of $250,000 or more. Purchases of foreign equipment with a total acquisition cost of $1,000,000 or more require the approval of the Head of Contracting Activity (HCA). The ARPA-E Grants Officer will provide consent to purchase or reject within 30 calendar days of receipt of the recipient's notification.

8. TECHNOLOGY TRANSFER AND OUTREACH

ARPA-E is required to contribute a percentage of appropriated funds to Technology Transfer and Outreach (TT&O) activities. To meet this mandate, every project team must spend at least 5% of the Federal funding (i.e., the portion of the award that does not include the recipient's cost share) provided by ARPA-E on TT&O activities to promote and further the development and eventual deployment of ARPA-E-funded technologies. Project teams must seek a waiver from ARPA-E, located in the Business Assurances & Disclosures Form, to spend less than the minimum 5% TT&O expenditure requirement.

All TT&O expenditures are subject to the applicable Federal cost principles (i.e., 2 C.F.R. 200 Subpart E or 48 C.F.R. Part 31). Examples of TT&O expenditures are as follows:

- Documented travel and registration for the ARPA-E Energy Innovation Summit and other energy-related conferences and events
- Documented travel to meet with potential suppliers, partners, or customers
- Documented work by salaried or contract personnel to develop technology-to-market models or plans
- Documented costs of acquiring industry-accepted market research reports
- Approved patent costs

9. LOBBYING

Recipients and subrecipients may not use any Federal funds, directly or indirectly, to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. § 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

Recipients and subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities" (https://www.gsa.gov/forms-library/disclosure-lobbying-activities) if any non-Federal funds have been paid or will be paid to any person for influencing or attempting to influence any of the following in connection with your application:

- An officer or employee of any Federal agency
- A Member of Congress
- An officer or employee of Congress
- An employee of a Member of Congress

10. CONFERENCE SPENDING

Recipients and subrecipients may not use any Federal funds to:

- Defray the cost to the U.S. Government of a conference held by any Executive branch department, agency, board, commission, or office that is not directly and programmatically related to the purpose for which their ARPA-E award is made and for which the cost to the U.S. Government is more than $20,000

- To circumvent the required notification by the head of any such Executive Branch department, agency, board, commission, or office to the Inspector General (or senior ethics official for any entity without an Inspector General) of the date, location, and number of employees attending such a conference

11. INDEPENDENT RESEARCH AND DEVELOPMENT COSTS

ARPA-E does not fund Independent Research and Development (IR&D) as part of an indirect cost rate under its grants and cooperative agreements. IR&D, as defined at FAR 31.205-18(a), includes cost of effort that is not sponsored by an assistance agreement or required in performance of a contract, and that consists of projects falling within the four following areas: (i) basic research, (ii) applied research, (iii) development, and (iv) systems and other concept formulation studies.

ARPA-E's goals are to enhance the economic and energy security of the U.S. through the development of energy technologies and to ensure that the U.S. maintains a technological lead in developing and deploying advanced energy technologies. ARPA-E accomplishes these goals by providing financial assistance for energy technology projects and has well recognized and established procedures for supporting research through competitive financial assistance awards based on merit review of proposed projects. Reimbursement IR&D costs through indirect costs could circumvent this competitive process.

To ensure that all projects receive similar and equal consideration, eligible organizations may compete for direct funding of independent research projects they consider worthy of support by submitting applications for those projects to ARPA-E. Because applications for these projects may be submitted for direct funding, costs for IR&D projects are not allowable as indirect costs under ARPA-E awards. IR&D costs, however, would still be included in the direct cost base that is used to calculate the indirect rate so as to ensure an appropriate allocation of indirect costs to the organization's direct cost centers.

12. BUY AMERICA REQUIREMENT FOR PUBLIC INFRASTRUCTURE PROJECTS

Projects funded through this NOFO that are for, or contain, construction, alteration, maintenance, or repair of public infrastructure in the U.S. undertaken by applicable recipient types, require that:

- All iron, steel, and manufactured products used in the infrastructure project are produced in the U.S.
- All construction materials used in the infrastructure project are manufactured in the U.S.

However, ARPA-E does not anticipate soliciting for or selecting projects that propose project tasks that are for, or contain, construction, alteration, maintenance, or repair of public infrastructure. If a project selected for award negotiations includes project tasks that may be subject to the Buy America Requirement, those project tasks will be removed from the project before any award is issued (i.e., no federal funding or recipient cost share will be available for covered project tasks).

This "Buy America" requirement does not apply to an award where the recipient is a for-profit entity.

13. REQUIREMENT FOR FINANCIAL PERSONNEL

ARPA-E requires small business or nonprofit applicants to identify a finance/budget professional (employee or contracted support) with an understanding of Federal contracting and/or financial assistance and cost accounting (including indirect costs, invoicing, and financial management systems) that will support the team in complying with all applicable requirements.

14. PARTICIPANTS, COLLABORATING ORGANIZATIONS, AND CURRENT AND PENDING SUPPORT

If selected for award negotiations, the selected applicant must submit, before the award is issued, an updated list of Covered Individuals[7] who are proposed to work on the project, both at the recipient and subrecipient level, and a list of all participating[8] organizations. Further, the selectee must submit 1) current and pending support disclosures and resumes for any new Covered Individuals and 2) updated disclosures if the current and pending support submitted with the application has changed.

Throughout the life of the award, recipients have an ongoing responsibility to notify DOE of changes to Covered Individuals, current and pending support, and collaborating organizations, within 30 days of such change, and to submit updated current and pending support disclosure statements and resumes as necessary. Recipients must certify on an annual basis that no such changes have occurred since their most recent certification.

Note that foreign participation is treated separately and requires a Foreign Entity Waiver, per Section II.A.4.

[7] See Section IX, Glossary, for the definition of Covered Individual.

[8] "Participation" here and in Section II.A.4 includes any activities performed under an ARPA-E award, including, but not limited to, all work described in the milestone schedule of an award (commonly referred to as "Attachment 3" or the "Statement of Project Objectives (SOPO)") and any services that include testing, including services performed by contractors. Participation also includes activities that involve the procurement of foreign equipment or supplies.

II. ELIGIBILITY INFORMATION

A. ELIGIBLE PRINCIPAL INVESTIGATORS

For the reasons set forth in Section I.C, the IGNIITE 2026 program is open to individual Principal Investigators (PIs) who are early-career innovators and entrepreneurs employed by an Eligible Applicant (see Section II.B for more information on Eligible Applicants). Proposals with multiple co-PIs or project oversight from senior personnel are not eligible for this program. All PIs must meet the following criteria:

1. Must be a U.S. citizen, U.S. permanent resident, or have applied for a U.S. Green Card by the time of submission of their proposal. In the latter case, the Application to Register Permanent Residence or Adjust Status (Form I-485) must have been filed with the U.S. Citizenship and Immigration Services before submitting the Concept Paper.
2. Must have graduated with a doctoral degree (Ph.D.) within eight years of the Concept Paper deadline, excluding any periods of extended leave occurring since the time the PI obtained their Ph.D. Such leave could include personal leaves of absence, parental leave, medical leave, etc. The type and duration of leave taken should be stated in the Personal Qualification Summary supplied with the Concept Paper application.
3. Must be employed by an Eligible Applicant (see Section II.B for more information on Eligible Applicants).
4. If employed at a U.S. Institution of Higher Education (IHE), must be a Tenure-Track Assistant/Associate Professor (i.e., pre-tenured) at the time of the Concept Paper submission.
5. Must have the authority to self-direct the proposed work and manage the ARPA-E funds toward a successful outcome.
6. Must be able to participate in the mandatory Annual Program to be held in Washington, D.C., as described in Section I.E.
7. Must have the support of their organization to act as the PI for the proposed project, as evidenced by a letter signed by the PI's direct supervisor attesting to the applicant's eligibility as described above and expressing their commitment to support the PI in the successful completion of the project (including, but not limited to, time, space, laboratory access, etc.).

B. ELIGIBLE APPLICANTS

For-profit entities (which includes large businesses and small businesses), IHEs, DOE/NNCA FFRDCs/DOE Labs, and nonprofits[9] that (A) are organized, chartered, or incorporated (or otherwise formed) under the laws of a particular state or territory of the U.S.; (B) have majority domestic ownership and control; and (C) have a physical place of business in the U.S., including U.S. territories, are eligible to apply, and these entities must apply as a Standalone Applicant only (i.e., they cannot apply as a member of a project team with another entity or a subrecipient).

[9] Nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995, are not eligible to apply for funding as a recipient or subrecipient.

1. FOREIGN PARTICIPATION CONSIDERATIONS

Foreign participation in a project requires a Foreign Entity Waiver. Awardees have an ongoing obligation to report new foreign participation in a project and may be required to obtain a waiver before new foreign participation can occur. A Foreign Work Waiver may also be required (see Section I.G.6).

C. COMPLIANCE AND RESPONSIVENESS

Submissions that are noncompliant or nonresponsive to the NOFO as described in Sections IV.D and V.A, or submissions that do not meet the requirements in Sections II.A and II.B, are not eligible.

D. LIMITATION ON NUMBER OF SUBMISSIONS

ARPA-E is not limiting the number of submissions from a single applicant entity. However, individual PIs may submit no more than one application to this NOFO.

ARPA-E will accept only new submissions under this NOFO. Applicants may not seek renewal or supplementation of their existing awards through this NOFO.

E. COST SHARING

There is no Cost Share required for this NOFO.

III. APPLICATION CONTENTS AND FORMAT

A. GENERAL APPLICATION CONTENT REQUIREMENTS

1. MARKING OF CONFIDENTIAL INFORMATION

Except as described in Section VIII.E below, ARPA-E will use data and other information contained in Concept Papers, Full Applications, and Replies to Reviewer Comments strictly for evaluation purposes.

Concept Papers, Full Applications, Replies to Reviewer Comments, and other submissions containing confidential, proprietary, or privileged information should be marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The U.S. Government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose.

The cover sheet of the Concept Paper, Full Application, Reply to Reviewer Comments, or other submission must be marked as follows and identify the specific pages containing confidential, proprietary, or privileged information:

Notice of Restriction on Disclosure and Use of Data:

> Pages [___] of this document may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

The header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: "Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure." In addition, every line and paragraph containing confidential, proprietary, or privileged information must be clearly marked with double brackets or highlighting.

2. EXPORT CONTROL INFORMATION

Do not include information subject to export controls in any submissions, including Concept Papers, Full Applications, and Replies to Reviewer Comments, whether marked as subject to U.S. export control laws/regulations or otherwise. Such information may not be accepted by ARPA-E and may result in a determination that the application is non-compliant, and therefore not eligible for selection. This prohibition includes any submission containing a general, non-determinative statement such as "The information on this page [or pages _ to_] may be subject to U.S. export control laws/regulations", or similar. Under the terms of their award, awardees must be responsible for compliance with all export control laws/regulations.

B. CONCEPT PAPERS

1. FIRST COMPONENT: CONCEPT PAPER

The Concept Paper is mandatory (i.e., in order to submit a Full Application, a compliant and responsive Concept Paper must have been submitted) and must conform to the following formatting requirements:

- The Concept Paper must not exceed 4 pages in length including images, graphics, figures, and/or tables.
- The Concept Paper must also include a Personal Qualification Summary, not to exceed 2 pages, for a total document maximum of 6 pages.
- The Concept Paper must be submitted in Adobe PDF format.
- The Concept Paper must be written in English.
- All pages must be formatted to fit on 8-1/2 by 11-inch paper with margins not less than one inch on every side. Single space all text and use Times New Roman typeface, a black font color, and a font size of 12 point or larger (except in figures and tables).
- The ARPA-E assigned Control Number, the Lead Organization Name, and the Principal Investigator's Last Name must be prominently displayed on the upper right corner of the header of every page. Page numbers must be included in the footer of every page.
- The first paragraph must include the Lead Organization's Name and Location, Principal Investigator's Name, Technical Category, Proposed Funding Requested (Federal and Cost Share), and Project Duration.

A fillable Concept Paper template is available on ARPA-E eXCHANGE at https://arpa-e-foa.energy.gov. Concept Papers must conform to the content requirements described in the template associated with this NOFO. If applicants exceed the maximum page lengths specified for each section or add any additional sections not requested, ARPA-E may review only the authorized number of pages and disregard any additional pages or sections.

Each Concept Paper must be limited to a single concept or technology. Unrelated concepts and technologies must not be consolidated into a single Concept Paper.

Concept Papers found to be noncompliant or nonresponsive may not be merit reviewed or considered for award (see Section II.C of the NOFO).

2. SECOND COMPONENT: SUMMARY SLIDE

Applicants are required to provide a single PowerPoint slide summarizing the proposed project. The slide must be submitted in Microsoft PowerPoint format and must follow the provided summary slide template associated with this NOFO available on ARPA-E eXCHANGE. This slide will be used during ARPA-E's evaluation of Concept Papers. Summary Slides must conform to the content and format requirements described in the template.

3. THIRD COMPONENT: LETTER OF SUPPORT

Applicants must submit a letter of support signed by the PI's direct supervisor (1) attesting to the applicant's and PI's eligibility as described in Sections II.A and II.B and (2) expressing their commitment to support the PI in the successful completion of the project (including, but not limited to, time, space, laboratory access).

Letters of support must be on official letterhead and be signed. There is no page limit for the letter of support.

4. FOURTH COMPONENT: TRANSCRIPT

Applicants must submit a copy of the proposed PI's official or unofficial transcript from their Ph.D. program. There is no page limit for the transcript.

C. FULL APPLICATIONS

Full Applications must conform to the following formatting requirements:

- Each document must be submitted in the file format prescribed below and/or written in the document template at https://arpa-e-foa.energy.gov.
- The Full Application must be written in English.
- All pages must be formatted to fit on 8-1/2 by 11-inch paper with margins not less than one inch on every side. Single space all text and use Times New Roman typeface, a black font color, and a font size of 12 point or larger (except in figures and tables).
- The ARPA-E assigned Control Number, the Lead Organization Name, and the Principal Investigator's Last Name must be prominently displayed on the upper right corner of the header of every page. Page numbers must be included in the footer of every page.

Fillable Full Application template documents associated with this NOFO are available on ARPA-E eXCHANGE at https://arpa-e-foa.energy.gov. **Applicants must refer to these template application documents and not templates associated with earlier NOFOs, which may cause the application to be deemed noncompliant.**

Applicants should name all Covered Individuals in the eXCHANGE interface when prompted and ensure consistency between eXCHANGE, the Technical Volume (III.C.1), the Business Assurances and Disclosures Form(s) (III.C.6), the Biosketches (III.C.7), and the CPS Common Forms (III.C.8).

Full Applications found in any component to be noncompliant or nonresponsive may not be merit reviewed or considered for award (see Section II.C of the NOFO).

ARPA-E provides detailed guidance on the content and form of each component below.

1. FIRST COMPONENT: TECHNICAL VOLUME

The Technical Volume is the centerpiece of the Full Application. The Technical Volume must be submitted in Adobe PDF format. The Technical Volume must conform to the content and form requirements included within the template, including maximum page lengths. If applicants exceed the maximum page lengths specified for each section or add any additional sections not requested, ARPA-E may review only the authorized number of pages and disregard any additional pages or sections.

Applicants must provide sufficient citations and references to the primary research literature to justify the claims and approaches made in the Technical Volume. ARPA-E and reviewers may review primary research literature to evaluate applications. However, all relevant technical information should be included in the body of the Technical Volume.

2. SECOND COMPONENT: SF-424

The SF-424 must be submitted in Adobe PDF format using the available template. An instructional document is also available on ARPA-E eXCHANGE. Applicants must complete all required fields per the instructions. Applicants may identify and include in Block 14 the entities, their addresses, and corresponding census tract numbers for any project activities that will occur within any designated Qualified Opportunity Zone (QOZ). To locate QOZs, go to: https://www.cdfifund.gov/opportunity-zones.

Recipients and subrecipients are required to complete SF-LLL (Disclosure of Lobbying Activities), also available on ARPA-E eXCHANGE, if any non-Federal funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with your application or funding agreement. The completed SF-LLL must be appended to the SF-424.

ARPA-E provides the following supplemental guidance on completing the SF-424:

- Each project team should submit only one SF-424 (i.e., a subrecipient should not submit a separate SF-424).
- The list of certifications and assurances in Block 21 can be found at https://www.energy.gov/management/articles/certifications-and-assurances-use-sf-424.
- The dates and dollar amounts on the SF-424 are for the entire period of performance, not for a portion.
- Applicants are responsible for ensuring that the proposed costs listed in eXCHANGE match those listed on forms SF-424 and the Budget Justification Workbook/SF-424A. Inconsistent submissions may affect ARPA-E's final award determination.

3. THIRD COMPONENT: BUDGET JUSTIFICATION WORKBOOK/SF-424A

Applicants are required to complete the Budget Justification Workbook/SF-424A Excel spreadsheet using the available template. Recipients must complete each tab of the Budget

Justification Workbook for the project as a whole, including all work to be performed by the recipient and its subrecipients and contractors. The SF-424A form included with the Budget Justification Workbook will auto-populate as the applicant enters information into the Workbook. Applicants should carefully read the "Instructions and Summary" tab provided within the Budget Justification Workbook and all instructions at the top of each category tab. For more information, an ARPA-E Budget Justification Guidance document is also available on ARPA-E eXCHANGE.

4. FOURTH COMPONENT: SUMMARY FOR PUBLIC RELEASE

Applicants are required to provide a 250-word maximum Summary for Public Release following the instructions in the available template. The Summary for Public Release must be submitted in Adobe PDF format. For applications selected for award negotiations, the Summary may be used as the basis for a public announcement by ARPA-E; therefore, this summary should not include any confidential, proprietary, or privileged information. This summary may not include any graphics, figures, or tables. The summary should be written for a lay audience (e.g., general public, media, Congress) using plain English.

5. FIFTH COMPONENT: SUMMARY SLIDE

Applicants are required to provide a single PowerPoint slide summarizing the proposed project. The slide must be submitted in Microsoft PowerPoint format and must follow the provided summary slide template available on ARPA-E eXCHANGE. This slide will be used during ARPA-E's evaluation of Full Applications. Summary Slides must conform to the content and format requirements described in the template.

6. SIXTH COMPONENT: BUSINESS ASSURANCES & DISCLOSURES FORM

Applicants are required to provide the information requested in the Business Assurances & Disclosures Form. The information must be submitted in Adobe PDF format and digitally signed by all required parties. The fillable Business Assurances & Disclosures Form template on ARPA-E eXCHANGE includes instructions for items the applicant is required to disclose, describe, or request a waiver for.

7. SEVENTH COMPONENT: BIOGRAPHICAL SKETCHES (BIOSKETCH)

As part of the application, each Covered Individual at the applicant and subrecipient level must submit a biographical sketch ("Biosketch"). Use SciENcv (Science Experts Network Curriculum Vitae, https://www.ncbi.nlm.nih.gov/sciencv) to produce a DOE/NNSA compliant PDF version of the Biosketch. There is no page limitation for the Biosketch, although some fields in SciENcv have character limitations for consistency.

Consistent with the instructions in NSPM-33 Implementation Guidance Pre- and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending (Other)

Support[10] and the ARPA-E NOFO-Specific Biosketch Instructions below, the Biosketch and CPS Common Forms (Section III.C.8, below) must together include a 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
- Governmental 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 connections with malign foreign talent recruitment programs must be identified.

  Please note the following:
- With the exception of "Covered Individual", which is defined in the Glossary (Section IX), all other definitions of terms used in the Biosketch are available at U.S. National Science Foundation's Definitions web page.
- If there is any conflict between the NSPM-33 Implementation Guidance and the ARPA-E NOFO-Specific Biosketch Instructions below, follow the instructions in this NOFO.

ARPA-E NOFO-SPECIFIC BIOSKETCH INSTRUCTIONS	
Persistent Identifier (PID) of the Covered Individual	The PID field is required for all ARPA-E NOFOs.
Appointments and Positions Reporting Timeframe	Identify all domestic and foreign professional appointments and positions, both inside and outside the primary organization. There should be no lapses in time over the past 10 years or since age 18, whichever period is shorter.
Products: Limitation on Number Provided	List up to 10 products most closely related to the proposed project.

8. EIGHTH COMPONENT: CURRENT, PENDING, AND PAST SUPPORT

Current and pending (other) support ("CPS Common Form") is used to identify potential duplication, overcommitment, potential conflicts of interest or commitment, and all other sources of support. As part of the application, each Covered Individual at the applicant and subrecipient levels must submit a CPS Common Form. Use SciENcv to produce a DOE/NNSA compliant PDF version of the CPS Common Form. There is no page limitation for the CPS Common Form, although some fields in SciENcv have character limitations for consistency.

[10] https://www.nsf.gov/policies/nspm-33/disclosures

The CPS Common Form and the Biosketch must together include a list of all sponsored activities, awards, and appointments as described in Section III.C.7, above.

Please note the following:

- With the exception of "Covered Individual", which is defined in the Glossary (Section IX), all other definitions of terms used in the CPS Common Form are available at the U.S. National Science Foundation's Definitions web page.
- If there is any conflict between the NSPM-33 Implementation Guidance and the ARPA-E NOFO-Specific CPS Instructions below, follow the instructions in this NOFO.

ARPA-E NOFO-SPECIFIC CPS INSTRUCTIONS	
Persistent Identifier (PID) of the Covered Individual	The PID field is required for all ARPA-E NOFOs.
Reporting Timeframe for Proposals, Projects, and In-Kind Contributions	In addition to **current** and **pending** support, disclosure of the **past** five (5) years of support is required. See the "Status of Support" field of the SciENcv CPS Common Form for definitions of current, pending, and past.
Types of Proposals and Active Projects to Disclose	In addition to the guidance listed above, consulting activities must be disclosed under the proposals and active projects section of the form when any of the following scenarios apply: • The consulting activity will require the Covered Individual to perform research as part of the consulting activity. • The consulting activity does not involve performing research, but it is related to the Covered Individual's research portfolio and could affect funding, alter time or effort commitments, or otherwise affect scientific integrity. • The consulting entity has provided a contract that requires the Covered Individual to conceal or withhold confidential financial or other ties between the Covered Individual and the entity, irrespective of the duration of the engagement.
Disclosure Instructions for In-Kind Travel	DOE/NNSA's in-kind disclosure requirements for the "travel supported/paid by an external entity to attend a conference or workshop" line of the table entitled "NSPM-33 Implementation Guidance Pre- and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending (Other) Support" differs from NSPM-33 as follows. Disclosure is required for: • "Travel supported/paid by an external entity to attend a conference or workshop" located in a foreign country of concern (FCOC).

	• "Travel supported/paid by an external entity to attend a conference or workshop" when the supporting/paying external entity is located in an FCOC. Disclosure is not required for: • "Travel supported/paid by an external entity to attend a conference or workshop" that is not located in an FCOC. • "Travel supported/paid by an external entity to attend a conference or workshop" when the supporting/paying external entity is not located in an FCOC.
Current and Pending (Other) Support Addendum	The Current and Pending (Other) Support Addendum is not required for this NOFO.

9. NINTH COMPONENT: TRANSPARENCY OF FOREIGN CONNECTIONS

Applicants must provide a Transparency of Foreign Connections disclosure and certification as it relates to the proposed project team lead and subrecipient(s). Applicants should submit separate Transparency of Foreign Connections disclosures for each member of the project team. The information must be submitted in Adobe PDF format and digitally signed by all required parties. The fillable Transparency of Foreign Connections template on ARPA-E eXCHANGE includes all required disclosures.

Disclosure exceptions by entity type:

- U.S. National Laboratories and domestic government entities are not required to respond to the Transparency of Foreign Connections disclosure.
- Institutions of higher education are only required to respond to items with an asterisk symbol (*).
- The applicability of disclosure requirements is determined by the entity type. Regardless of whether the project team lead is exempt, the subrecipient(s) must provide these disclosures unless the subrecipient is also exempt.

DOE reserves the right to request additional or clarifying information based on the information submitted. Questions can be directed to rtesinfo@hq.doe.gov.

D. REPLIES TO REVIEWER COMMENTS

Written feedback on Full Applications is made available to applicants before the submission deadline for Replies to Reviewer Comments. Applicants have a brief opportunity to prepare a short Reply to Reviewer Comments responding to one or more comments or

supplementing their Full Application. A fillable Reply to Reviewer Comments template is available on ARPA-E eXCHANGE (https://arpa-e-foa.energy.gov).

Replies to Reviewer Comments must conform to the following requirements:

- The Reply to Reviewer Comments must be submitted in Adobe PDF format.
- The Reply to Reviewer Comments must be written in English.
- All pages must be formatted to fit on 8-1/2 by 11-inch paper with margins not less than one inch on every side. Use Times New Roman typeface, a black font color, and a font size of 12 points or larger (except in figures and tables).
- The Reply to Reviewer Comments must be a maximum of 3 pages—2 pages maximum for text, and 1 page maximum for images (e.g., graphics, charts, or other data).
- The Control Number must be prominently displayed on the upper right corner of the header of every page. Page numbers must be included in the footer of every page.

IV. SUBMISSION REQUIREMENTS AND DEADLINES

All documents, templates, and instructions required to apply to this NOFO are either linked in this document or are available on ARPA-E eXCHANGE at https://arpa-e-foa.energy.gov.

Concept Papers, Full Applications, and Replies to Reviewer Comments must be submitted through ARPA-E eXCHANGE. ARPA-E will not review or consider applications submitted through other means (e.g., fax, hand delivery, email, postal mail).

ARPA-E expects to retain copies of all Concept Papers, Full Applications, Replies to Reviewer Comments, and other submissions. No submissions will be returned. By applying to ARPA-E for funding, applicants consent to ARPA-E's retention of their submissions.

A. UNIQUE ENTITY IDENTIFIER AND SAM REGISTRATION

Applicants must register with the System for Award Management (SAM) at www.sam.gov/SAM prior to submitting an application, at which time the system will assign (if newly registered) a Unique Entity Identifier (UEI). Applicants should commence this process as soon as possible. Registering with SAM and obtaining the UEI could take several weeks.

Recipients must:

- Maintain a current and active registration in SAM.gov at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency, including (if applicable) information on its immediate and highest-level owner and subsidiaries and on all predecessors that have been awarded a Federal contract or financial assistance award within the last three years.
- Remain registered in SAM.gov after the initial registration.
- Update its information in SAM.gov as soon as it changes.
- Review its information in SAM.gov annually from the date of initial registration or subsequent updates to ensure it is current, accurate and complete.
- Include its UEI in each application it submits.
- Not make a subaward to any entity unless the entity has provided its UEI.

Subrecipients are not required to complete a full registration in SAM.gov but must obtain a UEI. ARPA-E may not execute a funding agreement with the recipient until it has obtained a UEI and completed its SAM registration.

B. USE OF ARPA-E eXCHANGE

To apply to this NOFO, applicants must register with ARPA-E eXCHANGE (https://arpa-e-foa.energy.gov/Registration.aspx). For detailed guidance on using ARPA-E eXCHANGE, please refer to the "ARPA-E eXCHANGE Applicant Guide" (https://arpa-e-foa.energy.gov/Manuals.aspx).

Applicants are encouraged to log in to eXCHANGE using Enhanced Identity Proofing. ARPA-E eXCHANGE offers both Login.gov and ID.me as methods to authenticate identities. Applicants can still use the legacy Login.gov option. Please note that Login.gov and ID.me may require some users to go through a validation process that can take up to 10 days.

Upon creating an application submission in ARPA-E eXCHANGE, applicants will be assigned a Control Number. If the applicant creates more than one application submission, a different Control Number will be assigned for each application.

Once logged in to ARPA-E eXCHANGE (https://arpa-e-foa.energy.gov/login.aspx), applicants may access their submissions by clicking the "Submissions" and then "My Submissions" links in the navigation on the left side of the page. Every application that the applicant has submitted to ARPA-E and the corresponding Control Number is displayed on that page. If the applicant submits more than one application to a particular NOFO, a different Control Number is shown for each application.

Applicants are responsible for meeting each submission deadline in ARPA-E eXCHANGE. **Applicants are strongly encouraged to submit their applications at least 48 hours in advance of the submission deadline.** Under normal conditions (i.e., at least 48 hours in advance of the submission deadline), applicants should allow at least 1 hour to submit a Concept Paper or Full Application. In addition, applicants should allow at least 15 minutes to submit a Reply to Reviewer Comments. Once the application is submitted in ARPA-E eXCHANGE, applicants may revise or update their application until the expiration of the applicable deadline.

Applicants should not wait until the last minute to begin the submission process. During the final hours before the submission deadline, applicants may experience server/connection congestion that prevents them from completing the necessary steps in ARPA-E eXCHANGE to submit their applications. **ARPA-E will not extend the submission deadline for applicants that fail to submit required information and documents due to server/connection congestion.**

C. REQUIRED DOCUMENTS CHECKLIST AND DEADLINES

The following table outlines the required documents and their submission deadlines.

SUBMISSION	COMPONENTS	OPTIONAL/ MANDATORY	NOFO SECTION	DEADLINES

Concept Paper	• Concept Paper (Adobe PDF)
	  o Technical Content (4 pages max., including graphics, tables, figures and/or tables)
	  o Personal Qualification Summary (2 pages max.)
	• Each Concept Paper must be accompanied by:
	  o Letter of Support (no page limit, Adobe PDF)
	  o Academic Transcript (no page limit, Adobe PDF)
	  o Summary Slide (1 page limit, Microsoft PowerPoint)
		Mandatory	III.B	9:30 AM ET, May 29, 2026

Full Application	• Technical Volume (Adobe PDF):
	  o Cover Page (1 page max.)
	  o Executive Summary (1 page max.)
	  o Sections 1-5 (15 pages max.)
	  o Bibliographic References (no page limit)
	• The Technical Volume must be accompanied by:
	  o Signed SF-424 (Adobe PDF)
	  o Budget Justification Workbook/SF-424A (Microsoft Excel)
	  o Summary for Public Release (250 words max., Adobe PDF)
	  o Summary Slide (1 slide limit, Microsoft PowerPoint)
	  o Completed and Signed Business Assurances &
		Mandatory	III.C	TBD

	Disclosures Form(s) (signed by all required parties, no page limit, Adobe PDF) o Biosketch for Each Covered Individual (Adobe PDF, all Biosketches combined into one PDF, no page limit); and o CPS Common Form for each Covered Individual (Adobe PDF, all CPS Common Forms combined into one PDF, no page limit).			
Reply to Reviewer Comments	• Reply to Reviewer Comments (3 pages max., Adobe PDF)	Optional	III.D	TBD

D. COMPLIANCE

ARPA-E may not review or consider incomplete applications and applications received after the deadline stated in the NOFO. Such applications may be deemed noncompliant (see Section II.B of the NOFO). The following errors could cause an application to be deemed "incomplete" and thus noncompliant:

- Failing to comply with the form and content requirements in Section III of the NOFO
- Failing to enter required information in ARPA-E eXCHANGE
- Failing to upload required document(s) to ARPA-E eXCHANGE
- Failing to click the "Submit" button in ARPA-E eXCHANGE by the deadline stated in the NOFO
- Uploading the wrong document(s) or application(s) to ARPA-E eXCHANGE
- Uploading the same document twice but labeling it as different documents. (In the latter scenario, the applicant failed to submit a required document.)

ARPA-E urges applicants to carefully review their applications and to allow sufficient time for the submission of required information and documents.

E. ARTIFICIAL INTELLIGENCE (AI) APPLICATION USE

Applicants must indicate in the project summary the extent to which, if any, generative Artificial Intelligence (AI) technology was used and how it was used to develop their application or proposal. All submissions to the Department are subject to information and disclosure statutes and regulations, including the Freedom of Information Act, Privacy Act, and 10 C.F.R. § 1004.11. Applicants are responsible for the accuracy, authenticity, and authorship representations of their proposal submission under consideration for merit review, including content developed with the assistance of generative AI tools. The applicant is responsible for

ensuring that they are fully capable of performing the work described in the application and that the submission of the application does not and will not infringe or violate any rights of any third party or entity.

Applicants should be aware that the use of generative AI may introduce significant risks, including, but not limited to, research misconduct resulting from fabrication, falsification, or plagiarism when proposing, performing, or reviewing research, or in reporting research results. Federal regulations governing procedures for handling of research misconduct allegations concerning research supported by DOE grants, cooperative agreements, and management and operations (M&O) contracts, are specified in 10 C.F.R. Part 733. Specific provisions governing research misconduct procedures for financial assistance recipients (under grants and cooperative agreements) are specified in 2 C.F.R. § 910.132.

F. INTERGOVERNMENTAL REVIEW

This program is not subject to Executive Order 12372 (Intergovernmental Review of Federal Programs).

V. APPLICATION REVIEW INFORMATION

A. RESPONSIVENESS

ARPA-E performs a preliminary technical review of Concept Papers and Full Applications. The following types of submissions may be deemed nonresponsive and may not be reviewed or considered:

- Submissions that fall outside the technical parameters specified in this NOFO.
- Submissions that have been submitted in response to currently issued ARPA-E NOFOs.
- Submissions that are not scientifically distinct from applications submitted in response to currently issued ARPA-E NOFOs.
- Submissions for basic research aimed solely at discovery and/or the generation of fundamental knowledge.
- Submissions for large-scale demonstration projects of existing technologies.
- Submissions for proposed technologies that represent incremental improvements to existing technologies.
- Submissions for proposed technologies that are not based on sound scientific principles (e.g., violates a law of thermodynamics).
- Submissions for proposed technologies that are not transformational, as described in Section I.A of the NOFO.
- Submissions for proposed technologies that cannot become disruptive in nature, as described in Section I.A of the NOFO. Technologies must be scalable such that they could be disruptive with sufficient technical progress.
- Submissions that are not distinct in scientific approach or objective from activities currently supported by or actively under consideration for funding by any other office within DOE.
- Submissions that are not distinct in scientific approach or objective from activities currently supported by or actively under consideration for funding by other government agencies or the private sector.
- Submissions that do not propose a R&D plan that allows ARPA-E to evaluate the submission under the applicable merit review criteria in Section V.B of the NOFO.
- Submissions where the proposed project does not demonstrate hypothesis-driven research articulating clear, falsifiable hypotheses with explicitly defined, measurable criteria, supported by solid experimental designs and statistical methods.
- Submissions where the PI does not meet the eligibility criteria set forth in Section II.A of this NOFO.
- Submissions that do not include a copy of the proposed PI's transcript from a Ph.D. program and a letter of support from the PI's direct supervisor.

B. REVIEW CRITERIA

ARPA-E considers a mix of quantitative and qualitative criteria in determining whether to encourage the submission of a Full Application and whether to select a Full Application for award negotiations.

1. CRITERIA FOR CONCEPT PAPERS

(1) *Impact of the Proposed Technology Relative to NOFO Targets* (50%)—This criterion involves consideration of:

- The potential for a transformational and disruptive (not incremental) advancement compared with existing or emerging technologies
- The extent to which the proposed concept will have a positive impact on at least one of ARPA-E's statutory goals in Public Law 116–260
- Identification of techno-economic challenges that must be overcome for the proposed technology to be commercially relevant
- Demonstration of awareness of competing commercial and emerging technologies and identification of how the proposed concept/technology provides significant improvement over existing solutions

(2) *Overall Scientific and Technical Merit* (50%)—This criterion involves consideration of:

- The feasibility of the proposed work, as justified by appropriate background, theory, simulation, modeling, experimental data, or other reliable and sound scientific and engineering practices
- Sufficiency of technical approach to accomplish the proposed R&D objectives, including why the proposed concept is more appropriate than alternative approaches and how technical risk will be mitigated
- Clearly defined project outcomes and final deliverables
- The demonstrated capabilities of the individuals performing the project and the key capabilities of the organization

Submissions will not be evaluated against each other because they are not submitted in accordance with a common work statement.

2. CRITERIA FOR FULL APPLICATIONS

Full Applications are evaluated based on the following criteria:

(1) *Impact of the Proposed Technology* (30%)—This criterion involves consideration of:

- The potential for a transformational and disruptive (not incremental) advancement in one or more energy-related fields
- Thorough understanding of the current state-of-the-art and presentation of an innovative technical approach to significantly improve performance over the current state-of-the-art
- Awareness of competing commercial and emerging technologies and identification of how the proposed concept/technology provides significant improvement over these other solutions
- A reasonable and effective strategy for transitioning the proposed technology from the laboratory to commercial deployment

(2) *Overall Scientific and Technical Merit* (30%)—This criterion involves consideration of:

- Whether the proposed work is unique and innovative

- Clearly defined project outcomes and final deliverables
- Substantiation that the proposed project is likely to meet or exceed the technical performance targets identified in the application
- Feasibility of the proposed work based on preliminary data or other background information and sound scientific and engineering practices and principles
- A sound technical approach, including appropriately defined technical tasks, to accomplish the proposed R&D objectives
- Management of risk, to include identifying major technical R&D risks and feasible, effective mitigation strategies

(3) *Qualifications, Experience, and Capabilities of the Proposed PI* (30%)—This criterion involves consideration of**:**

- Whether the PI has the skill and expertise needed to successfully execute the project plan, as evidenced by prior experience that demonstrates an ability to perform R&D of similar risk and complexity
- Access to the equipment and facilities necessary to accomplish the proposed R&D effort and/or a clear plan to obtain access to necessary equipment and facilities

(4) *Soundness of Management Plan* (10%)—This criterion involves consideration of:

- Plausibility of plan to manage people and resources
- Allocation of appropriate levels of effort and resources to proposed tasks
- Reasonableness of the proposed project schedule, including major milestones
- Reasonableness of the proposed budget to accomplish the proposed project

Submissions will not be evaluated against each other because they are not submitted in accordance with a common work statement.

3. CRITERIA FOR REPLIES TO REVIEWER COMMENTS

ARPA-E has not established separate criteria to evaluate Replies to Reviewer Comments. Instead, Replies to Reviewer Comments are evaluated as an extension of the Full Application.

C. PROGRAM POLICY FACTORS

In addition to the above criteria, ARPA-E may consider the following program policy factors in determining which Concept Papers to encourage to submit a Full Application and which Full Applications to select for award negotiations:

I. **ARPA-E Portfolio Balance.** Project balances ARPA-E portfolio in one or more of the following areas:
   a. Scientific and technical disciplines represented in the proposed project team
   b. Technological variety
   c. Types of organizations (e.g., small business, university, national lab) on the proposed project team

d. Area(s) of the country where proposed project team members are located and where project work will be performed
e. Technical or commercialization risk
f. Stage of technology development

II. **Relevance to ARPA-E Mission Advancement.** Project contributes to one or more of ARPA-E's key statutory goals:
a. Reduction of U.S. dependence on foreign energy sources
b. Stimulation of U.S. manufacturing and/or software development
c. Reduction of energy-related emissions
d. Increase in U.S. energy efficiency
e. Enhancement of U.S. economic and energy security
f. Promotion of U.S. advanced energy technologies competitiveness

III. **Synergy of Public and Private Efforts.**
a. Avoids duplication and overlap with other publicly or privately funded projects
b. Promotes increased coordination with nongovernmental entities for demonstration of technologies and research applications to facilitate technology transfer
c. Shows ability to accelerate demonstration and commercialization and overcome key market barriers via industry involvement
d. Increases unique research collaborations

IV. **U.S. Economic Benefit.**
a. The degree to which the proposed project is likely to lead to increased high-quality employment and manufacturing in the U.S.
b. The degree to which the proposed project will employ procurement of U.S. iron, steel, manufactured products, and construction materials

V. **The Degree to Which the Proposed Project Demonstrably Advances the President's Policy Priorities.**

VI. **Low Likelihood of Other Sources of Funding.** High technical and/or financial uncertainty that results in the non-availability of other public, private, or internal funding or resources to support the project.

VII. **High Project Impact Relative to Project Cost** (including consideration of proposed indirect cost rates)**.**

VIII. **Qualified Opportunity Zone (QOZ).** Whether the entity is located in an urban and economically distressed area, including a Qualified Opportunity Zone (QOZ), or the proposed project will occur in a QOZ or otherwise advance the goals of QOZ. The goals include spurring economic development and job creation in distressed communities throughout the U.S. For a list or map of QOZs go to https://www.cdfifund.gov/opportunity-zones.

D. REVIEW AND SELECTION PROCESS

1. CONCEPT PAPERS

ARPA-E performs a preliminary review of Concept Papers to determine whether they are compliant and responsive. ARPA-E makes an independent assessment of each compliant and responsive Concept Paper based on the criteria and program policy factors in Sections V.B.1 and V.C of the NOFO. ARPA-E considers a mix of quantitative and qualitative criteria in determining whether to encourage the submission of a Full Application.

2. FULL APPLICATIONS

ARPA-E performs a preliminary review of Full Applications to determine whether they are compliant and responsive. Full Applications found to be noncompliant or nonresponsive may not be merit reviewed or considered for award. ARPA-E makes an independent assessment of each compliant and responsive Full Application based on the criteria and program policy factors in Sections V.B.2 and V.C of the NOFO.

3. REPLY TO REVIEWER COMMENTS

Once ARPA-E has completed its review of Full Applications, reviewer comments on compliant and responsive Full Applications are made available to applicants via ARPA-E eXCHANGE. ARPA-E may also provide more direct feedback at this time. Applicants may submit an optional Reply to Reviewer Comments, which must be submitted by the deadline stated in the NOFO.

ARPA-E performs a preliminary review of Replies to determine whether they are compliant, as described in Section III.D of the NOFO. ARPA-E will review and consider compliant Replies only.

4. PRE-SELECTION CLARIFICATIONS AND "DOWN-SELECT" PROCESS

Once ARPA-E completes its review of Full Applications and Replies to Reviewer Comments, it may, at the Grants Officer's discretion, conduct a pre-selection clarification process and/or perform a "down-select" of Full Applications. Through the pre-selection clarification process or down-select process, ARPA-E may obtain additional information from select applicants through pre-selection meetings, webinars, videoconferences, conference calls, written correspondence, or site visits that can be used to make a final selection determination. ARPA-E will not reimburse applicants for travel and other expenses relating to pre-selection meetings or site visits, nor will these costs be eligible for reimbursement as pre-award costs.

ARPA-E may select applications for award negotiations and make awards without pre-selection meetings and site visits. Participation in a pre-selection meeting or site visit with ARPA-E does not signify that applicants have been selected for award negotiations.

5. SELECTION FOR AWARD NEGOTIATIONS

ARPA-E carefully considers all of the information obtained through the application process and makes an independent assessment of each compliant and responsive Full Application based on the criteria, risk reviews, and program policy factors in Sections V.B, V.G, and V.C of the NOFO. ARPA-E considers a mix of quantitative and qualitative criteria in determining whether to select an application for award negotiation.

The Selection Official may select all or part of a Full Application for award negotiations. The Selection Official may also postpone a final selection determination on one or more Full Applications until a later date, subject to availability of funds and other factors. ARPA-E will enter into award negotiations only with selected applicants.

ARPA-E expects to announce selections for negotiations in approximately September 2026 and to execute funding agreements in approximately December 2026.

E. ARPA-E REVIEWERS

By submitting an application to ARPA-E, applicants consent to ARPA-E's use of Federal employees, contractors, and experts from IHEs, nonprofits, industry, and governmental and intergovernmental entities as reviewers. ARPA-E selects reviewers based on their knowledge and understanding of the relevant field and application, their experience and skills, and their ability to provide constructive feedback on applications.

ARPA-E requires all reviewers to complete a Conflict-of-Interest Certification and Nondisclosure Agreement through which they disclose their knowledge of any actual or apparent conflicts and agree to safeguard confidential information contained in Concept Papers, Full Applications, and Replies to Reviewer Comments. In addition, ARPA-E trains its reviewers in proper evaluation techniques and procedures.

Applicants are not permitted to nominate reviewers for their applications. Applicants may contact the Grants Officer by email (ARPA-E-CO@hq.doe.gov) if they have knowledge of a potential conflict of interest or a reasonable belief that a potential conflict exists.

F. ARPA-E SUPPORT CONTRACTORS

ARPA-E uses contractors to help evaluate applications and manage projects. To avoid actual and apparent conflicts of interest, ARPA-E prohibits its support contractors from submitting or participating in the preparation of applications to ARPA-E.

By submitting an application to ARPA-E, applicants represent that they are not performing support contractor services for ARPA-E in any capacity and did not obtain the assistance of ARPA-E's support contractors to prepare the application. ARPA-E will not consider any applications that are submitted by or prepared with the assistance of its support contractors.

G. RISK REVIEW

If selected for award negotiations, ARPA-E may evaluate the risks posed by the applicant using the criteria set forth at 2 C.F.R. § 200.206(b)(2). ARPA-E may require special award terms and conditions depending on the results of the risk analysis.

Further, as DOE invests in critical infrastructure and funds critical and emerging technology areas, DOE also considers possible vectors of undue foreign influence in evaluating risk. If high risks are identified and cannot be sufficiently mitigated, DOE may elect to not fund the applicant.

ARPA-E may not make an award if ARPA-E has determined that:

- The entity submitting the proposal or application:
    - Has an owner or Covered Individual that is party to a malign foreign talent recruitment program of the People's Republic of China or another foreign country of concern
    - Has a business entity, parent company, or subsidiary located in the People's Republic of China or another foreign country of concern
    - Has an owner or Covered Individual that has a foreign affiliation with a research institution located in the People's Republic of China or another foreign country of concern
- The relationships and commitments described above:
    - Interfere with the capacity for activities supported by the Federal agency to be carried out
    - Create duplication with activities supported by the Federal agency
    - Present concerns about conflicts of interest
    - Were not appropriately disclosed to the Federal agency
    - Violate Federal law or terms and conditions of the Federal agency
    - Pose a risk to national security

If high risks are identified and cannot be sufficiently mitigated, ARPA-E may elect to not fund the applicant.

H. DUE DILIGENCE REVIEW FOR RESEARCH, TECHNOLOGY AND ECONOMIC SECURITY

All applications submitted to DOE are subject to a due diligence review.

As DOE invests in critical infrastructure and funds critical and emerging technology areas, DOE considers possible threats to U.S. research, technology, and economic security from undue foreign government influence when evaluating risk. As part of the research, technology, and economic security risk review, DOE or ARPA-E may contact the applicant and/or proposed project team members for additional information to inform the review. This risk review is conducted separately from the technical merit review.

All project participants, which includes Covered Individuals participating in the project, are subject to Research, Technology and Economic Security (RTES) due diligence reviews. The

due diligence review of Covered Individuals includes but is not limited to the review of resumes/Biosketches, disclosures, and certifications, as required in the NOFO. DOE reserves the right to require resumes/Biosketches, disclosures, and certifications for project participants not defined as Covered Individuals. The applicant need not submit any additional information on non-Covered Individuals, unless requested by DOE. The volume and type of information collected may depend on various factors associated with the award. Note this review is separate and distinct from DOE Order 142.3B, "Unclassified Foreign National Access Program."

In the event an RTES risk is identified, DOE may require risk mitigation measures, including but not limited to, requiring that an individual or entity not participate in the award. If significant risks are identified and cannot be sufficiently mitigated, DOE may elect to not fund the applicant.

Consistent with section 4(e) of the Presidential Memorandum on U.S. Government-Supported Research and Development National Security Policy-33 (NSPM-33), DOE may share information regarding the risks identified as part of the RTES due diligence review process or monitoring with other Federal agencies.

DOE's decision regarding a due diligence review is not appealable.

VI. AWARD NOTICES AND AWARD TYPES

A. AWARD NOTICES

Recipients should register with FedConnect to be notified when their funding agreement has been executed by the Grants Officer and to obtain a copy of the executed funding agreement. Please refer to https://www.fedconnect.net/FedConnect/ for instructions.

1. REJECTED SUBMISSIONS

Noncompliant and nonresponsive Concept Papers and Full Applications are rejected by the Grants Officer and are not merit reviewed or considered for award. The Grants Officer sends a notification email to the technical and administrative points of contact designated by the applicant in ARPA-E eXCHANGE. The notification states why the Concept Paper or Full Application was rejected.

2. CONCEPT PAPER NOTIFICATIONS

ARPA-E promptly notifies applicants of its determination to invite or not invite the submission of a Full Application. ARPA-E sends a notification letter by email to the technical and administrative points of contact designated by the applicant in ARPA-E eXCHANGE. ARPA-E provides feedback in the notification letter in order to guide further development of the proposed technology.

Applicants may only submit a Full Application if they receive a notice that they are invited to submit one.

A notification letter encouraging the submission of a Full Application does not authorize the applicant to commence performance of the project.

3. FULL APPLICATION NOTIFICATIONS

ARPA-E promptly notifies applicants of its determination to select, postpone a final decision until a later date, or not select a Full Application for award negotiation. ARPA-E sends a notification letter by email to the technical and administrative points of contact designated by the applicant in ARPA-E eXCHANGE.

Written feedback on Full Applications is only made available to applicants in the Replies to Reviewer Comments process. ARPA-E does not offer or provide debriefings.

ARPA-E may stagger its selection determinations. As a result, some applicants may receive their notification letter before other applicants.

a. SUCCESSFUL APPLICANTS

ARPA-E has discretion to select all or part of a proposed project for negotiation of an award. A notification letter selecting a Full Application for award negotiations does not authorize the applicant to commence performance of the project. **ARPA-E selects Full Applications for award negotiations, not for awards.** Applicants do not receive an award until award negotiations are complete and the Grants Officer executes the funding agreement. The notice of Federal award signed by the Grants Officer is the official document that obligates funds. ARPA-E may terminate award negotiations at any time for any reason.

Applicants must not release any information related to selection under this NOFO until an official public announcement is made by ARPA-E. Any disclosure of selection without explicit authorization from ARPA-E prior to ARPA-E's official public announcement may result in termination of award negotiations.

The Grants Officer is the only individual who can make awards on behalf of ARPA-E or obligate ARPA-E to the expenditure of public funds. A commitment or obligation by any individual other than the Grants Officer, either explicit or implied, is invalid.

ARPA-E awards may not be transferred, assigned, or assumed without the prior written consent of a Grants Officer.

b. POSTPONED SELECTION DETERMINATIONS

A notification letter postponing a final selection determination until a later date does not authorize the applicant to commence performance of the project. ARPA-E may ultimately determine to select or not select the Full Application for award negotiations.

c. UNSUCCESSFUL APPLICANTS

By not selecting a Full Application, ARPA-E intends to convey its lack of programmatic interest in the proposed project. Such assessments do not necessarily reflect judgments on the merits of the proposed project. ARPA-E hopes that unsuccessful applicants will submit innovative ideas and concepts for future NOFOs.

B. PRE-AWARD COSTS

ARPA-E will not reimburse any pre-award costs incurred by applicants before they are selected for award negotiations. Please refer to Section VI.A of the NOFO for guidance on award notices.

Upon selection for award negotiations, applicants may incur pre-award costs at their own risk, consistent with the requirements in 2 C.F.R. Part 200, as modified by 2 C.F.R. Part 910, and other Federal laws and regulations. All submitted budgets are subject to change and are typically reworked during award negotiations. ARPA-E is under no obligation to reimburse pre-award costs if, for any reason, the applicant does not receive an award, the award is made for a lesser

amount than the applicant expected, or if the costs incurred are not considered allowable, allocable, or reasonable.

C. RENEWAL AWARDS

At ARPA-E's sole discretion, awards resulting from this NOFO may be renewed by adding one or more budget periods, extending the period of performance of the initial award, or issuing a new award. Renewal funding is contingent on:

- Availability of funds appropriated by Congress for the purpose of this program
- Substantial progress toward meeting the objectives of the approved application
- Submittal of required reports
- Compliance with the terms and conditions of the award
- ARPA-E approval of a renewal application
- Other factors identified by the agency at the time it solicits a renewal application

D. FUNDING AGREEMENT TYPES

Congress directed ARPA-E to "establish and monitor project milestones, initiate research projects quickly, and just as quickly terminate or restructure projects if such milestones are not achieved."[11]

1. GRANTS

ARPA-E expects to award fixed-amount grants[12] for research funded under this NOFO, except in special cases as provided below in Section VI.D.2. ARPA-E will only award a fixed-amount grant in instances where it can be assured that the prospective awardee will not realize any increment above the actual cost of performing work.

Equal payments will be made, one following grant award, and one each time the recipient submits and ARPA-E accepts each quarterly report demonstrating sufficient technical progress toward negotiated milestones. Final payment will be made when the recipient submits and the ARPA-E accepts the final technical report. The final payment also requires the recipient to certify to ARPA-E that all project activity has been completed.

For additional information about fixed-amount awards refer to 2 C.F.R. § 200.1 and 2 C.F.R. § 200.201.

[11] U.S. Congress, Conference Report to accompany the 21st Century Competitiveness Act of 2007, H. Rpt. 110-289 at 171-172 (Aug. 1, 2007).

[12] A grant is an award instrument used by ARPA-E to accomplish research according to ARPA-E's statutory authority. ARPA-E's participation in grant research is not substantial compared with ARPA-E awards through cooperative agreements.

2. FUNDING AGREEMENTS WITH FFRDCS/DOE LABS, GOGOS, AND FEDERAL INSTRUMENTALITIES

Any Federally Funded Research and Development Centers (FFRDC) involved as a member of a project team must provide the information requested in the "FFRDC Lab Authorization" and "Field Work Proposal" section of the Business Assurances & Disclosures Form, which is submitted with the applicant's Full Application.

When a FFRDC/DOE Lab (including the National Energy Technology Laboratory, or NETL) is the *lead organization* for a project team, ARPA-E executes a funding agreement directly with the FFRDC/DOE Lab and a single, separate cooperative agreement with another entity on the project team. Notwithstanding the use of multiple agreements, the FFRDC/DOE Lab is the lead organization for the entire project, including all work performed by the FFRDC/DOE Lab and the rest of the project team.

When a FFRDC/DOE Lab is a *member* of a project team, ARPA-E executes a funding agreement directly with the FFRDC/DOE Lab and a single, separate cooperative agreement with the recipient, as the lead organization for the project team. Notwithstanding the use of multiple agreements, the recipient under the cooperative agreement is the lead organization for the entire project, including all work performed by the FFRDC/DOE Lab and the rest of the project team.

Funding agreements with DOE/NNSA FFRDCs take the form of Work Authorizations issued to DOE/NNSA FFRDCs through the DOE/NNSA Field Work Proposal system for work performed under DOE Management & Operation Contracts. Funding agreements with non-DOE/NNSA FFRDCs, GOGOs (including NETL), and Federal instrumentalities (e.g., Tennessee Valley Authority) will be consistent with the sponsoring agreement between the U.S. Government and the Laboratory. Any funding agreement with an FFRDC or GOGO will have similar terms and conditions as ARPA-E's Model Cooperative Agreement (https://arpa-e.energy.gov/technologies/project-guidance/pre-award-guidance/funding-agreements).

Non-DOE GOGOs and Federal agencies may be asked to provide support to the project team members on an applicant's project through a Cooperative Research and Development Agreement (CRADA) or similar agreement.

VII. POST-AWARD REQUIREMENTS AND ADMINISTRATION

The recipient is the responsible authority regarding the settlement and satisfaction of all contractual and administrative issues, including but not limited to disputes and claims arising out of any agreement between the recipient and a FFRDC contractor. Recipients are required to flow down these requirements to their subrecipients through subawards or related agreements.

A. NATIONAL POLICY REQUIREMENTS

The following national policy requirements apply to recipients.

- If an award is made to a DOE/NNSA National Laboratory, all disputes and claims will be resolved in accordance with the terms and conditions of the DOE/NNSA National Laboratory's management and operating (M&O) contract, as applicable, in consultation between DOE and the recipient.

1. NATIONAL POLICY ASSURANCES

Project teams, including recipients and subrecipients, are required to comply with the National Policy Assurances in effect on the date of award located at https://www.nsf.gov/awards/managing/rtc.jsp in accordance with 2 C.F.R. § 200.300.

2. ENVIRONMENTAL IMPACT QUESTIONNAIRE

By law, ARPA-E must evaluate the potential environmental impact of projects that it is considering for funding. In particular, ARPA-E must determine before funding a project whether the project qualifies for a categorical exclusion under 10 C.F.R. § 1021.410 or whether it requires further environmental review (i.e., an environmental assessment or an environmental impact statement).

To facilitate and expedite ARPA-E's environmental review, recipients are required to complete an Environmental Impact Questionnaire during award negotiations. This form is available at https://arpa-e.energy.gov/technologies/project-guidance/pre-award-guidance/required-forms-and-templates. Each recipient must wait to complete the Environmental Impact Questionnaire (EIQ) until after ARPA-E has notified them that Attachment 3 Statement of Program Objectives is final. The completed EIQ is then due back to ARPA-E within 14 calendar days.

B. ADMINISTRATIVE REQUIREMENTS

1. INTELLECTUAL PROPERTY MANAGEMENT PLAN AND DATA MANAGEMENT AND SHARING PLAN

ARPA-E requires every project team to negotiate and establish an Intellectual Property Management Plan for the management and disposition of intellectual property arising from the

project. The recipient must submit a completed and signed Intellectual Property Management Plan to ARPA-E within six weeks of the effective date of the ARPA-E funding agreement. All Intellectual Property Management Plans are subject to the terms and conditions of the ARPA-E funding agreement, its intellectual property provisions, and applicable Federal laws, regulations, and policies, all of which take precedence over the terms of Intellectual Property Management Plans.

ARPA-E has developed a template for Intellectual Property Management Plans (https://arpa-e.energy.gov/technologies/project-guidance/post-award-guidance/project-management-reporting-requirements) to facilitate and expedite negotiations between project team members. ARPA-E does not mandate the use of this template. ARPA-E and DOE do not make any warranty (express or implied) or assume any liability or responsibility for the accuracy, completeness, or usefulness of the template. ARPA-E and DOE strongly encourage project teams to consult independent legal counsel before using the template.

Awardees are also required, post-award, to submit a Data Management and Sharing Plan (DMSP) that addresses how data generated in the course of the work performed under an ARPA-E award will be preserved and, as appropriate, shared publicly. If needed, updates to the DMSP, through the course of the award, must be provided to ARPA-E for review and approval. In general, a DMSP should address the requirements on the DOE Requirements and Guidance for Digital Research Data Management website: https://www.energy.gov/datamanagement/doe-requirements-and-guidance-digital-research-data-management.

The recipient must submit a completed and signed DMSP and Intellectual Property Management Plan to ARPA-E within six weeks of the effective start date of the ARPA-E funding agreement.

2. U.S. COMPETITIVENESS

A primary objective of DOE's multi-billion-dollar research, development, and demonstration investments— including ARPA-E awards—is the advancement of new energy technologies, manufacturing capabilities, and supply chains for and by U.S. industry and labor. Therefore, in exchange for receiving taxpayer dollars to support an applicant's project, the applicant must agree to the following U.S. Competitiveness Provision or equivalent terms as part of an award under this NOFO.

U.S. Competitiveness

> The Contractor (Recipient in ARPA-E awards) agrees that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the U.S. unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., alternative binding commitments to provide an overall net benefit to the U.S. economy. The Contractor agrees that it will not license, assign or otherwise transfer any subject invention to any entity, at any tier, unless

that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention(s): (1) undergo a change in ownership amounting to a controlling interest, or (2) sell, assign, or otherwise transfer title or exclusive rights in the invention(s), then the assignment, license, or other transfer of rights in the subject invention(s) is/are suspended until approved in writing by DOE. The Contractor and any successor assignee will convey to DOE, upon written request from DOE, title to any subject invention, upon a breach of this paragraph. The Contractor will include this paragraph in all subawards/contracts, regardless of tier, for experimental, developmental or research work.

A subject invention is any invention of the contractor conceived or first actually reduced to practice in the performance of work under an award. An invention is any invention or discovery which is or may be patentable. The contractor includes any awardee, recipient, sub-awardee, or subrecipient.

As noted in the U.S. Competitiveness Provision, at any time in which an entity cannot meet the requirements of the U.S. Competitiveness Provision, the entity may request a modification or waiver of the U.S. Competitiveness Provision. For example, the entity may propose modifying the language of the U.S. Competitiveness Provision in order to change the scope of the requirements or to provide more specifics on the application of the requirements for a particular technology. As another example, the entity may request that the U.S. Competitiveness Provision be waived in lieu of a net benefits statement or U.S. manufacturing plan. The statement or plan would contain specific and enforceable commitments that would be beneficial to the U.S. economy and competitiveness. Commitments could include manufacturing specific products in the U.S., making a specific investment in a new or existing U.S. manufacturing facility, keeping certain activities based in the U.S. or supporting a certain number of jobs in the U.S. related to the technology. If DOE, in its sole discretion, determines that the proposed modification or waiver promotes commercialization and provides substantial U.S. economic benefits, DOE may grant the request and, if granted, modify the award terms and conditions for the requesting entity accordingly.

The U.S. Competitiveness Provision is implemented by DOE pursuant to a Determination of Exceptional Circumstances (DEC) under the Bayh-Dole Act and DOE Patent Waivers. See Section VIII.A, "Title to Subject Inventions," of this NOFO for more information on the DEC and DOE Patent Waiver. Information and guidance on a waiver and modification request process to the U.S. Competitiveness Provision can be found in the DOE Financial Assistance Letter on this topic, available at https://www.energy.gov/management/pf-2022-09-fal-2022-01-implementation-doe-determination-exceptional-circumstances-under.

3. NONDISCLOSURE AND CONFIDENTIALITY AGREEMENTS REPRESENTATIONS

In submitting an application in response to this NOFO, the applicant represents that:

(1) **It does not and will not** require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise

restricting its employees or contractors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(2) **It does not and will not** use any Federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:

a. *"These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling."*

b. The limitation above must not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

c. Notwithstanding the provision listed in paragraph (a), a nondisclosure confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the U.S. Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement must, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the U.S. Government. Such nondisclosure or confidentiality forms must also make it clear that they do not bar disclosure to Congress, an authorized official of an executive agency, or the Department of Justice of information that is essential to reporting a substantial violation of law.

4. INTERIM CONFLICT OF INTEREST POLICY FOR FINANCIAL ASSISTANCE

The DOE interim Conflict of Interest Policy for Financial Assistance (COI Policy) can be found at https://www.energy.gov/management/financial-assistance-letter-no-fal-2022-02. This policy is applicable to all non-Federal entities applying for, or that receive, DOE funding by means of a financial assistance award (e.g., a grant, cooperative agreement, or technology investment agreement or similar other transaction agreement) and, through the implementation of this policy by the entity, to each Investigator who is planning to participate in, or is participating in, the project funded wholly or in part under the DOE financial assistance award. DOE's interim COI Policy establishes standards that provide a reasonable expectation that the design, conduct, and reporting of projects funded wholly or in part under DOE financial assistance

awards will be free from bias resulting from financial conflicts of interest or organizational conflicts of interest. The applicant is subject to the requirements of the interim COI Policy, and within each application for financial assistance, the applicant must certify that it is, or will be by the time of receiving any financial assistance award, compliant with all requirements in the interim COI Policy. For applicants to any ARPA-E NOFO, this certification, disclosure of any managed or unmanaged conflicts of interest, and a copy of (or link to) the applicant's own conflict of interest policy must be included with the information provided in the Business Assurances & Disclosures Form. The applicant must also flow down the requirements of the interim COI Policy to any subrecipient non-Federal entities.

5. COMPLIANCE AUDIT REQUIREMENT

A recipient organized as a for-profit entity expending $1,000,000 or more of DOE funds in the entity's fiscal year (including funds expended as a subrecipient) must have an annual compliance audit performed at the completion of its fiscal year. For additional information, refer to Subpart F of (i) 2 C.F.R. Part 200 and (ii) 2 C.F.R. Part 910.

If an IHE, nonprofit, or state/local government has expended $1,000,000 or more of Federal funds (including funds expended as a subrecipient) in the entity's fiscal year, the entity must have an annual compliance audit performed at the completion of its fiscal year. For additional information refer to Subpart F of 2 C.F.R. Part 200.

6. RESEARCH SECURITY TRAINING REQUIREMENT

Covered Individuals listed on applications under this NOFO are required to certify that they have taken research security training consistent with section 10634 of the CHIPS and Science Act of 2022. In addition, applicants who receive an award must maintain sufficient records (records must be retained for the time period noted in 2 C.F.R. § 200.334 and made available to DOE upon request) of their compliance with this requirement for Covered Individuals at the recipient organization, and they must extend this requirement to any and all subrecipients. To fulfill this requirement, an applicant may use the four one-hour training modules developed by the U.S. National Science Foundation at https://new.nsf.gov/research-security/training or develop and implement their own research security training program aligned with the requirements in section 10634(b) of the CHIPS and Science Act of 2022. The submission of an application to this NOFO constitutes the acceptance of this requirement.

7. FOREIGN COLLABORATION CONSIDERATIONS

At any point after notification that an application has been selected for negotiations, the recipient will be required to provide ARPA-E with advanced written notification of any potential collaboration with foreign entities, organizations, or governments in connection with its ARPA-E-funded award scope. The recipient must await further guidance from ARPA-E prior to contacting the proposed foreign entity, organization, or government regarding the potential collaboration or negotiating the terms of any potential collaboration agreement.

All existing collaborations with foreign entities, organizations, and governments connected with the proposed scope of work must be reported in the Foreign Entity Waiver.

Description of collaborations that should be reported:

- In general, a collaboration will involve some provision of a thing of value to, or from, the award recipient.
- A thing of value includes but may not be limited to all resources made available to, or from, the recipient in support of and/or related to the ARPA-E award, regardless of whether they have monetary value.
- Things of value also may include in-kind contributions (such as office/laboratory space, data, equipment, supplies, employees, students).
- In-kind contributions not intended for direct use on the ARPA-E award but resulting in provision of a thing of value from or to the ARPA-E award must also be reported.

Collaborations do not include routine workshops, conferences, use of the recipient's services and facilities by foreign investigators resulting from its standard published process for evaluating requests for access, or the routine use of foreign facilities by awardee staff in accordance with the recipient's standard policies and procedures.

C. REPORTING

Recipients are required to submit periodic, detailed reports on technical, financial, and other aspects of the project, as described in Attachment 4 to ARPA-E's Model Cooperative Agreement (https://arpa-e.energy.gov/technologies/project-guidance/pre-award-guidance/funding-agreements).

1. FRAUD, WASTE, AND ABUSE

An applicant, recipient, or subrecipient must promptly disclose whenever in connection with the federal award (including any activities or subawards thereunder), it has credible evidence of the commission of a violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the U.S. Code or a violation of the civil False Claims Act (31 U.S.C. §§ 3729-3733). The disclosure must be made in writing to the Federal agency, the agency's Office of Inspector General, and pass-through entity (if applicable.) Recipients and subrecipients are also required to report matters related to recipient integrity and performance in accordance with Appendix XII of 2 C.F.R. Part 200. Failure to make required disclosures can result in any of the remedies described in 2 C.F.R. § 200.339. (See also 2 C.F.R. Part 180, 31 U.S.C. § 3321, and 41 U.S.C. § 2313.)

For guidance on reporting such violations and information to the DOE Office of Inspector General (OIG), please visit https://www.energy.gov/ig/ig-hotline.

2. COMMERCIALIZATION PLAN AND SOFTWARE REPORTING

If your project is selected and it targets the development of software, you may be required to prepare a Commercialization Plan for the targeted software and agree to special provisions that

require the reporting of the targeted software and its utilization. This special approach to projects that target software mirrors the requirements for reporting that attach to new inventions made in performance of an award.

VIII. OTHER INFORMATION

A. TITLE TO SUBJECT INVENTIONS

Ownership of subject inventions is governed according to the authorities listed below:

- Domestic Small Businesses, Educational Institutions, and Nonprofits: Under the Bayh-Dole Act (35 U.S.C. § 200 et seq.), domestic small businesses, IHEs, and nonprofits may elect to retain title to their subject inventions;
- All Other Parties: The federal Non-Nuclear Energy Act of 1974, 42. U.S.C. § 5908, provides that the government obtains title to new subject inventions unless a waiver is granted (see below):
    - Class Patent Waiver for Domestic Large Businesses: DOE has issued a class patent waiver that applies to this NOFO. Under this class patent waiver, domestic large businesses may elect title to their subject inventions similar to the right provided to the domestic small businesses, IHEs, and nonprofits by law. A domestic large business as defined by the class waiver is any for-profit organization that does not qualify as a "small business" under Small Business Administration size standards and is incorporated or otherwise formed under the laws of a particular state or territory of the U.S. To avail itself of the class patent waiver, a domestic large business must agree to the U.S. Competitiveness Provision in accordance with Section VII.B.3 of this NOFO.
    - Advance and Identified Waivers: For applicants that do not fall under the class patent waiver or the Bayh-Dole Act, those applicants may request a patent waiver that will cover subject inventions that may be made under the award, in advance of or within 30 days after the effective date of the award. Even if an advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver for identified inventions, i.e., individual subject inventions that are disclosed to DOE within the time frames set forth in the award's intellectual property terms and conditions. Any patent waiver that may be granted is subject to certain terms and conditions in 10 C.F.R. Part 784.
- Determination of Exceptional Circumstance (DEC): On June 07, 2021, DOE approved a *Determination of Exceptional Circumstances under the Bayh-Dole Act to Further Promote Domestic Manufacture of DOE Science and Energy Technologies*. In accordance with this DEC, all awards, including sub-awards, under this NOFO made to a Bayh-Dole entity (domestic small businesses and nonprofits) must include the U.S. Competitiveness Provision in accordance with Section VII.B.3 of this NOFO. A copy of the DEC may be found on the DOE website currently at https://www.energy.gov/gc/determination-exceptional-circumstances-decs. Under 37 C.F.R. § 401.4, any Bayh-Dole entity affected by this DEC has the right to appeal it by providing written notice to DOE within 30 working days from the time it receives a copy of the determination.
- Information and guidance on a waiver and modification request process to the U.S. Competitiveness Provision can be found in the DOE Financial Assistance Letter on this topic at https://www.energy.gov/management/pf-2022-09-fal-2022-01-implementation-doe-determination-exceptional-circumstances-under.

B. GOVERNMENT RIGHTS IN SUBJECT INVENTIONS

Where recipients and subrecipients retain title to subject inventions, the U.S. Government retains certain rights.

1. GOVERNMENT USE LICENSE

The U.S. Government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the U.S. any subject invention throughout the world. This license extends to contractors doing work on behalf of the Government.

2. MARCH-IN RIGHTS

The U.S. Government retains march-in rights with respect to all subject inventions. Through "march-in rights," the Government may require a recipient or subrecipient who has elected to retain title to a subject invention (or their assignees or exclusive licensees) to grant a license for use of the invention. In addition, the Government may grant licenses for use of the subject invention when recipients, subrecipients, or their assignees and exclusive licensees refuse to do so.

The U.S. Government may exercise its march-in rights if it determines that such action is necessary under any of the four following conditions:

- The owner or licensee has not taken or is not expected to take effective steps to achieve practical application of the invention within a reasonable time.
- The owner or licensee has not taken action to alleviate health or safety needs in a reasonably satisfactory manner.
- The owner has not met public use requirements specified by Federal statutes in a reasonably satisfactory manner.
- The U.S. manufacturing requirement has not been met.

C. RIGHTS IN TECHNICAL DATA

Data rights differ based on whether data is first produced under an award or instead was developed at private expense outside the award.

- Government Rights in Background or "Limited Rights Data": Limited Rights Data is data (other than computer software) developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The U.S. Government will not normally require delivery of technical data developed solely at private expense prior to issuance of an award, except as necessary to monitor technical progress and evaluate the potential of proposed technologies to reach specific technical and cost metrics.
- Government Rights in Technical Data First Produced Under Awards: The U.S. Government normally retains unlimited rights in technical data produced under Government financial assistance awards, including the right to distribute to the public.

Unlimited rights means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose whatsoever, and to have or permit others to do so. However, under special statutory authority, certain categories of Protected Data first produced in the performance of corresponding ARPA-E awards may be protected from public disclosure for up to ten years after the data is first produced, in accordance with provisions that will be set forth in the award. Protected Data is technical data or commercial or financial data first produced in the performance of the award which, if it had been obtained from and first produced by a non-federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. § 552(b)(4) and which data is marked as being protected data by a party to the award. For awards permitting Protected Data, the Protected Data must be marked as set forth in the award.

- In addition, invention disclosures may be protected from public disclosure for a reasonable time in order to allow for filing a patent application.

D. PROTECTED PERSONALLY IDENTIFIABLE INFORMATION

Applicants may not include any Protected Personally Identifiable Information (Protected PII) in their submissions to ARPA-E. Protected PII is defined as data that, if compromised, could cause harm to an individual such as identity theft. Listed below are examples of Protected PII that applicants must not include in their submissions.

- Social Security numbers in any form
- Place of birth associated with an individual
- Date of birth associated with an individual
- Mother's maiden name associated with an individual
- Biometric record associated with an individual
- Fingerprint
- Iris scan
- DNA
- Medical history information associated with an individual
- Medical conditions, including history of disease
- Metric information, e.g., weight, height, blood pressure
- Criminal history associated with an individual
- Ratings
- Disciplinary actions
- Performance elements and standards (or work expectations), when they are so intertwined with performance appraisals that their disclosure would reveal an individual's performance appraisal
- Financial information associated with an individual
- Credit card numbers
- Bank account numbers
- Security clearance history or related information (not including clearances held)

E. PRESIDENTIAL MEMORANDUM ON SIMPLIFYING FUNDING OF ENERGY INFRASTRUCTURE AND CRITICAL MINERAL AND MATERIAL PROJECTS

According to the Presidential Memorandum "Simplifying the Funding of Energy Infrastructure and Critical Mineral and Materials Projects" dated June 30, 2025, for applications proposing energy infrastructure and critical mineral and material projects, ARPA-E may share and use within the Government any application information provided by or on behalf of the applicant in response to this NOFO. Accordingly, in accordance with applicable law and notwithstanding any other provisions herein, by submitting an application or agreeing to a financial assistance arrangement with ARPA-E for energy infrastructure and critical mineral and materials projects under this NOFO, the applicant is providing consent for any properly marked trade secret or confidential, proprietary, privileged, or otherwise sensitive application information provided by or on behalf of the applicant to be disclosed to the Executive Office of the President and relevant agencies offering loans, grants, equity, guarantees or other federal funding, for the purposes outlined in the Presidential Memorandum.

IX. GLOSSARY

Applicant: The entity that submits the application to ARPA-E. In the case of a project team, the applicant is the lead organization listed on the application.

Application: The entire submission received by ARPA-E, including all components of the Concept Paper, Full Application, and Reply to Reviewer Comments.

ARPA-E: The Advanced Research Projects Agency— Energy, an agency of the U.S. DOE.

Covered Individual: an individual who (a) contributes in a substantive, meaningful way to the development or execution of the scope of work of the project and (b) is designated as a Covered Individual by ARPA-E. ARPA-E designates as Covered Individuals any principal investigator (PI), project director (PD), co-principal investigator (Co-PI), co-project director (Co-PD), project manager, and any individual regardless of title that is functionally performing as a PI, PD, Co-PI, Co-PD, or project manager. Status as a consultant, graduate (master's or PhD) student, or postdoctoral associate does not automatically disqualify a person from being designated as a Covered Individual if they meet the definition in (a) above. The recipient is responsible for assessing the applicability of (a) against each person listed on the project (i.e., listed by the non-Federal entity in the application for Federal financial assistance, approved budget, progress report, or any other report submitted to ARPA-E by the non-Federal entity regarding the subject project). Further, the recipient is responsible for identifying any such individual to ARPA-E for designation as a Covered Individual, if not already designated by ARPA-E as described above. The recipient's submission of a current and pending support disclosure and/or Biosketch/resume for a particular person serves as an acknowledgement that ARPA-E designates that person as a Covered Individual. ARPA-E may further designate Covered Individuals during the award period of performance.

Deliverable: A deliverable is the quantifiable goods or services that will be provided upon the successful completion of a project task or subtask.

DOE: U.S. Department of Energy

DOE/NNSA: DOE/National Nuclear Security Administration.

Entity of Concern: Defined in section 10114 of Public Law 117–167 (42 U.S.C. § 18912), also known as the CHIPS and Science Act, as any entity, including a national, that is:

- Identified under section 1237(b) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (50 U.S.C. § 1701 note; Public Law 105–261)
- Identified under section 1260H of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (10 U.S.C. § 113 note; Public Law 116–283)
- On the Entity List maintained by the Bureau of Industry and Security of the Department of Commerce and set forth in Supplement No. 4 to part 744 of title 15, Code of Federal Regulations
- Included in the list required by section 9(b)(3) of the Uyghur Human Rights Policy Act of 2020 (Public Law 116–145; 134 Stat. 656)

- Identified by the Secretary, in coordination with the Director of the Office of Intelligence and Counterintelligence and the applicable office that would provide, or is providing, covered support, as posing an unmanageable threat:
    - To the national security of the U.S.
    - Of theft or loss of U.S. intellectual property

FFRDCs: Federally Funded Research and Development Centers

Foreign Affiliation: A funded or unfunded academic, professional, or institutional appointment or position with a foreign government or government-owned entity, whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary).

Foreign Countries of Concern: Includes the People's Republic of China, Iran, the Democratic People's Republic of Korea, and Russia.

For-Profit Organizations (or For-Profit Entities): Entities organized for-profit that are large businesses or small businesses as those terms are defined elsewhere in this Glossary.

GOCOs: U.S. Government Owned, Contractor Operated laboratories.

GOGOs: U.S. Government Owned, Government Operated laboratories.

Institution of Higher Education: Has the meaning set forth at 20 U.S.C. § 1001.

Large Business: Large businesses are entities organized for profit other than small businesses as defined elsewhere in this Glossary.

Malign Foreign Talent Recruitment Program: The meaning given such term in section 10638(4) of the Research and Development, Competition, and Innovation Act (division B of Public Law 117–167) or 42 U.S.C. § 19237, as of October 20, 2022.

Milestone: A milestone is the tangible, observable measurement that will be provided upon the successful completion of a project task or subtask.

Nonprofit (or Nonprofit Organization): Has the meaning set forth at 2 C.F.R. § 200.70.

PI: Principal Investigator.

Small Business: Small businesses are domestically incorporated entities that meet the criteria established by the U.S. Small Business Administration's (SBA) "Table of Small Business Size Standards Matched to North American Industry Classification System Codes" (NAICS) (http://www.sba.gov/content/small-business-size-standards).

Standalone Applicant: An applicant that applies for funding on its own, not as a part of a project team.

Subject Invention: Any invention conceived or first actually reduced to practice under an ARPA-E funding agreement.

Task: A task is an operation or segment of the work plan that requires both effort and resources. Each task (or subtask) is connected to the overall objective of the project, via the achievement of a milestone or a deliverable.

Total Project Cost: The sum of the recipient share and the Federal Government share of total allowable costs. The Federal Government share generally includes costs incurred by GOGOs, FFRDCs, and GOCOs.

TT&O: Technology Transfer and Outreach. (See Section I.G.8 of the NOFO).