Financial Assistance Notice of Funding Opportunity Part 1



U.S. Department of Energy (DOE)

Advanced Materials & Manufacturing Technologies Office (AMMTO)

The Circular Supply Chains Accelerator

Notice of Funding Opportunity Number: DE-FOA-0003512

Application due: July 18, 2025, 5 pm ET

All modifications to the Notice of Funding Opportunity (NOFO) are HIGHLIGHTED in the body of the NOFO.

Modifications to this NOFO will be posted on eXCHANGE and Grants.gov. Grants.gov will automatically notify applicants when a NOFO modification is processed. Applicants must be registered to this NOFO in Grants.gov to receive email notifications. See Registration Requirements in Part 2 of this NOFO.

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Before You Begin

Navigating the Notice of Funding Opportunity

The OMB Memorandum M-24-11 directs federal agencies to reduce the burden on applicants in the Notice of Funding Opportunity (NOFO) process and limit the length of the NOFO information requests. With Fiscal Year (FY) 2025 NOFOs, DOE has separated the NOFO into two parts.

The NOFO Part 1 describes the specific DOE programmatic goals and evaluation criteria, eligibility, and other components that are specific to each funding opportunity. The NOFO Part 2 includes the fixed DOE requirements that generally do not change from NOFO to NOFO, including standard information for the application phase, expectations for award negotiations, and post-award requirements. Applicants must review both the NOFO Part 1 and the NOFO Part 2 prior to applying. To facilitate navigation, you will find links throughout this document to additional information found in Part 2.

There are several required one-time actions applicants must take before applying to this NOFO. Some of these actions may take several weeks, so it is vital applicants build in enough time to complete them. Failure to complete these actions could interfere with application or negotiation deadlines or the ability to receive an award if selected. If you have previously completed the necessary registrations, make sure your registration is active and up to date. All registrations are free. Please refer to NOFO Part 2, *Get Registered*, for additional information.

This announcement is published in conjunction with NOFO Part 2.

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I. Basic Information

A. Key Facts

Issuing Agency	Department of Energy, Office of Energy Efficiency and Renewable Energy, Advanced Materials and Manufacturing Technologies Office	KEY DAT
Funding Opportunity Title	The Circular Supply Chains Accelerator	Notice of Fu
Announcement Type	Initial	Date: January 16,
Funding Opportunity Number	DE-FOA-0003512	Concept Pa
Funding Instrument	Cooperative Agreement or a Funding Agreement with FFRDC's	Deadline: March 31, 2
Assistance Listing Number	81.086	Application Deadline:
Funding Opportunity Description	Circular supply chains improve security and reduce environmental impacts, maximizing the lifetime of materials and products in the economy to support a robust and competitive manufacturing sector while providing economy-wide environmental benefits. Research and development (R&D) of new technologies to increase reuse, repair, recycling, remanufacturing, and repurposing of products and materials will be essential to realize these economic and environmental benefits. To maximize effectiveness, R&D must be informed by analysis of non-technical factors, including market forces, business models, and the policy landscape. Such analysis can provide a systems-level viewidentifying promising technologies and deployment pathways as well as what roadblocks remainespecially when it leverages input from a wide set of connected stakeholders. Those stakeholders can also amplify the impact of DOE investments in technologies that advance circular supply chains. This Notice of Funding Opportunity (NOFO) seeks to assemble a team that will conduct analysis, connect broad groups of stakeholders within multiple application spaces, and socialize EERE-developed	Anticipated Selection Notification November 3
	innovations across a variety of industries to advance those innovations. The Accelerator's role will include advancing the entire circularity field's understanding of emerging technologies, thereby enabling the identification of potential roadblocks to deployment and opportunities to reduce the risks of technology commercialization.	

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Program Goals & Objective(s)

Circular supply chains support a robust and competitive manufacturing sector while providing economy-wide environmental benefits. AMMTO works across government, national labs, academia, and industry to address challenges and pursue high-impact opportunities in developing circular supply chains, including focusing on material streams that are growing rapidly and those with high environmental and economic impact. Critical materials are one such important area of interest.

Topic Area

Topic Area 1: The Circular Supply Chains Accelerator

Establishes a team that 1) conducts system-level analysis to inform rapid advancement of circular supply chain innovations and 2) convenes and facilitates collaboration across industries and investments to catalyze learning and increase impact. To achieve these goals, the Accelerator will engage with stakeholders across technology, business, and policy expertise to forge new connections and increase coordination.

Eligible Applicants

Domestic Entities

The proposed prime recipient and subrecipient(s) to the application under this NOFO must be domestic entities. The following types of domestic entities are eligible to participate as a prime recipient or subrecipient of this NOFO:

- 1. Institutions of higher education;
- 2. For-profit entities;
- 3. Nonprofit entities; and
- 4. State and local governmental entities and federally recognized Indian Tribes (Indian Tribes).

To qualify as a domestic entity, the entity must be organized, chartered, or incorporated (or otherwise formed) under the laws of a particular state or territory of the United States; have majority domestic ownership and control; and have a physical place of business in the United States.

DOE/NNSA FFRDCs are eligible to apply for funding as a prime recipient or subrecipient.

Non-DOE/NNSA FFRDCs are eligible to participate as a subrecipient but are not eligible to apply as a prime recipient.

Federal agencies and instrumentalities (other than DOE) are eligible to participate as a subrecipient but are not eligible to apply as a prime recipient.

eXCHANGE URL and Helpdesk

https://eere-exchange.energy.gov/
https://eere-exchange.energy.gov/ContactUs.aspx include NOFO

name and number in the subject line.

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1. Funding Details

Single Topic Area

Approximate total available funding: \$7.5 – 12.5M

Approximate number of awards: 1

Minimum cost share required: 10%

Approximate award project period: 3-5 Years

Anticipated length of budget periods: 1-2 Years

1. Period of Performance

DOE anticipates making awards, comprised of multiple budget periods. If applicable, project continuation will be contingent upon DOE's Go/No-Go decision. For a complete list and more information on the Go/No-Go review, see the NOFO Part 2, Award Administration Information. Funding for all budget periods, including the initial budget period, is not guaranteed.

B. Executive Summary

The Advanced Materials and Manufacturing Technologies Office (AMMTO) supports the development of a globally competitive U.S. energy industrial base that drives supply chain resiliency and energy security through materials and manufacturing innovation. The development of circular supply chains that enable efficient use of materials through reuse, repair, remanufacture, and recycling is important toward accomplishing these goals. ^{1,2} Efforts to achieve a robust and competitive manufacturing sector through innovation in circular supply chains cannot be successful without: (1) a comprehensive understanding of the landscape of technical and non-technical factors that could impact the adoption of emerging technologies and (2) strong connections across the circularity field to accelerate innovations from R&D-scale to commercial practice. This NOFO seeks to establish a new accelerator which will address this need through the development of a comprehensive technical and market analysis portfolio and stakeholder engagement activities.

The Accelerator's analysis portfolio will establish a comprehensive understanding of both technical and non-technical factors impacting the adoption of emerging technologies for circular supply chains. Technical factors of interest include the state of emerging technologies in terms of performance and cost metrics. Awareness of these technical factors requires strong understanding of the R&D landscape as well as the state of industrial practice. Non-technical factors of interest include market conditions, supply chain dynamics, policy and regulatory landscape, workforce readiness, infrastructure capabilities, among others. These non-technical market factors may be region-specific and would be critical to inform a systems-level perspective of potential barriers and pathways to widespread commercial adoption. The Accelerator will leverage understanding of technical and non-technical factors to analyze market opportunity within specific product and material market segments. This will identify specific early adopter markets and sequential pathways to more broadly scale the deployment of emerging technologies for greater impact.

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¹ Ellen MacArthur Foundation. 2023. "What is a Circular Economy?" *Ellen MacArthur Foundation*. https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview.

² Ellen MacArthur Foundation. 2019. "Circular Economy Systems Diagram." *Ellen MacArthur Foundation*. https://www.ellenmacarthurfoundation.org/circular-economy-diagram.



Opportunities to leverage advancements in emerging technologies and market tools (e.g., standards, offtake agreements, verification frameworks, data systems, etc.) across product and material segments will also be identified.

The Accelerator's stakeholder engagement activities will cultivate a range of stakeholders that are critical to both supporting the analysis portfolio and to facilitating the coordination needed for technology adoption for circular supply chains. These stakeholder engagement activities will strengthen relationships with industry members to support increased sharing of data and best practices as there are many synergistic technology needs across different product and material segments. These programs will enable enhanced diffusion of advancements in emerging technologies, business models and market tools throughout the circularity field. Most importantly, these stakeholder engagement activities will establish and cultivate relationships between potential performer groups that will strengthen the innovation ecosystem needed to deliver on other funded programs focused on building circular supply chain technologies.

The target audience of this NOFO includes entities or collections of entities that incorporate expertise in circular supply chains across technology development and market transformation factors. All applicants who meet the eligibility criteria described in Section II may apply. Applicants should have demonstrated experience in the activities described in the topic description.

C. Agency Contact Information

Office of Energy Efficiency and Renewable Energy Advanced Materials & Manufacturing Technologies Office U.S. Department of Energy 1000 Independence Ave SW Washington, D.C. 20585

For questions relating to this specific NOFO, please send emails to <u>Circularity.NOFO.FY25@ee.doe.gov</u>.

DISCLAIMER: Applicants are discouraged from submitting information considered proprietary unless it is deemed essential for proper evaluation of the application. If the application contains information that the applicant organization considers to be trade secrets, information that is commercial or financial, or information that is privileged or confidential, the pages containing that information must be identified as specified in the application instructions. When such information is included in the application, it will be withheld from public disclosure to the extent permitted by law, including the Freedom of Information Act, with the understanding that the information will be used or disclosed only for evaluation of the application. The information contained in the application will be protected by DOE from unauthorized disclosure, consistent with the need for merit review of applications of financial assistance awards to assure the integrity of the competitive process and the accuracy and completeness of the information. If a federal financial assistance award is made as a result of or in connection with an application, the federal government has the right to use or disclose the information to the extent authorized by law. This restriction does not limit the federal government's right to use the information if it is obtained without restriction from another source.

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II. Eligibility

To be considered for substantive evaluation, an applicant's submission must meet the criteria set forth below. If the application does not meet these eligibility requirements, it will be considered ineligible and removed from further evaluation and ineligible for any award. DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this NOFO must be submitted. The decision whether to apply in response to this NOFO lies solely with the applicant. The information included here is specific to eligibility requirements for this NOFO. For eligibility requirements applicable to all NOFOs, please consult the NOFO Part 2, *Eligibility*.

A. Eligible Applicants

To be considered for substantive evaluation, an applicant's submission must meet the criteria set forth below. If the application does not meet these eligibility requirements, it will be considered ineligible and removed from further evaluation.

2. Domestic Entities

Domestic entities are eligible to apply as recipients or subrecipients. The following types of domestic entities are eligible to participate as a recipient or subrecipient of this NOFO:

- Institutions of higher education;
- For-profit organization;
- Nonprofit organization;
- State and local governmental entities; and
- Indian Tribes, as defined in section 4 of the Indian Self-Determination and Education Assistance Act, 25 U.S.C. § 5304³

To qualify as a domestic entity, the entity must be organized, chartered, or incorporated (or otherwise formed) under the laws of a particular state or territory of the United States or under the laws of the United States; have majority domestic ownership and control; and have a physical place of business in the United States.

Participant Limitations

Participation of the following entities are limited as follows.

• DOE FFRDCs⁴ are eligible to apply for funding as a recipient or subrecipient.

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³ "Indian Tribe," for the purposes of this NOFO and as defined in in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 5304), means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688) [43 U.S.C. § 1601, et seq.], which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians. Federally Recognized Indian Tribes are also considered disadvantaged communities for the purposes of Justice40 requirements in this NOFO per https://www.whitehouse.gov/wp-content/uploads/2023/01/M-23-09 Signed CEQ CPO.pdf.

⁴ FFRDCs are public-private partnerships that conduct research for the U.S. government. A listing of FFRDCs can be found at http://www.nsf.gov/statistics/ffrdclist/.



- Non-DOE FFRDCs are eligible to participate as a subrecipient but are not eligible to apply as a recipient.
- Federal agencies and instrumentalities (other than DOE) are eligible to participate as a subrecipient but are typically not eligible to apply as a recipient.

3. Foreign Entity Participation

In general, foreign entities are not eligible to apply as either a recipient or subrecipient. In limited circumstances, DOE may approve a waiver to allow a foreign entity to participate as a recipient or subrecipient.

A foreign entity may submit an application to this NOFO, but the application must be accompanied by an explicit written waiver request. Likewise, if the applicant seeks to include a foreign entity as a subrecipient, the applicant must submit a separate explicit written waiver request in the application for each proposed foreign subrecipient. Please see NOFO Part 2, Application Content Requirements for the requirements for submission of a foreign entity waiver request. The applicant does not have the right to appeal DOE's decision concerning a waiver request.

Prime recipients and subrecipients must be legally formed in the United States, have majority domestic ownership and control, and have a physical location for business operations in the United States.

Foreign Entity Participation

A foreign entity is eligible to apply for funding as a recipient if it designates in the application a subsidiary or affiliate incorporated (or otherwise formed) under the laws of a state or territory of the United States to be the recipient. The application must state the nature of the corporate relationship between the foreign entity and domestic subsidiary or affiliate.

Foreign entities may request a waiver of the requirement to designate a subsidiary in the United States as the recipient in the application (i.e., a foreign entity may request that it be the recipient). To do so, the applicant must submit an explicit written waiver request in the application.

NOFO Part 2, Application Content Requirements lists the information that must be included in a request to waive this requirement. The applicant does not have the right to appeal DOE's decision concerning a waiver request.

Performance of Work in the United States

All work for the awards under this NOFO must be performed in the United States. To request a waiver of this requirement, the applicant must submit an explicit waiver request in the application. Absent an approved waiver, such costs will not be allowable under the award. The NOFO Part 2, Application Content Requirements lists the requirements for submission of a foreign work waiver request.

Ineligible Participants

The following entities are ineligible for participation in this NOFO as a recipient, subrecipient, or subcontractor.

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- In accordance with 2 CFR 200.214, entities banned from doing business with the U.S. government such as entities debarred, suspended, or otherwise excluded from or ineligible for participating in federal programs.
- Entities identified on Department of the Treasury Office of Foreign Assets Control Treasury's
 Sanctions Program Specially Designated Nationals list are prohibited from doing business with
 the United States government and are not eligible. See OFAC Sanctions List Service (treas.gov).
- 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.

Entity of Concern Prohibition

Entities of Concern are prohibited from participating in projects selected under this NOFO (see NOFO Part 2, *Eligibility, Other Eligibility Information, Entity of Concern Prohibition* section for details and definitions).

B. Limitation on Number of Concept Papers and Applications Eligible for Review

An entity may submit only one concept paper and one associated application to this NOFO. The concept paper and application must address no more than one topic area identified in Key Facts section above. If an entity submits more than one concept paper the DOE will only review the last submission. This limitation does not prohibit an applicant from collaborating on other applications (e.g., as a potential subrecipient or partner) so long as the entity is listed as the applicant on only one concept paper and one associated application submitted under this NOFO.

C. Cost Sharing

Applicants are expected to follow through on estimated cost share commitments proposed in their applications if selected for award negotiations. Please refer to the NOFO Part 2, *Eligibility* for more information on Cost Sharing.

4. Cost Share Requirements

The cost share must be at least 10% of the total project costs⁵ for applications submitted under this NOFO.

Applications that do not meet the minimum required cost share will be deemed ineligible during the initial compliance review and will not be further reviewed. The cost share must come from non-federal sources unless otherwise allowed by law.

The cost share percentage is calculated by dividing the cost share by the total allowable project costs for the award where the total allowable project costs include government share (including FFRDC costs if applicable) and cost share. To help applicants calculate proper cost share amounts, DOE has included a

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⁵ Total project costs are the sum of the government share, including FFRDC costs if applicable, and the recipient share of project costs.



cost share information sheet and sample cost share calculation in the NOFO Part 2, *Eligibility—Cost Sharing, Cost Share Calculation Examples*.

5. Unallowable Cost Share Sources, NOFO Specific

The unallowable cost share sources identified here are specific to this announcement. Refer to NOFO Part 2, Eligibility--Cost Sharing, Unallowable Cost Share Sources for unallowable cost share sources applicable to all NOFOs.

D. FFRDC Eligibility Criteria

1. DOE FFRDCs as the Applicant

A DOE FFRDC is eligible to apply for funding under this NOFO if its cognizant Contracting Officer provides written authorization and this authorization is submitted with the application.

The following wording is acceptable for the authorization:

Authorization is granted for the Laboratory to participate in the proposed project. The work proposed for the Laboratory is consistent with or complementary to the missions of the Laboratory and will not adversely impact execution of the DOE assigned programs at the Laboratory.

If a DOE FFRDC is selected for award negotiation, the proposed work will be authorized under the DOE work authorization process and performed under the laboratory's Management and Operating (M&O) contract.

2. DOE and Non-DOE FFRDCs as a Subrecipient

As long as they have no conflict, DOE and non-DOE FFRDCs may be proposed as a subrecipient on another entity's application subject to the following guidelines:

Authorization for non-DOE FFRDCs

The federal agency sponsoring the FFRDC must authorize in writing the use of the FFRDC on the proposed project and this authorization must be submitted with the application. The use of a FFRDC must be consistent with its authority under its award.

Authorization for DOE FFRDCs

The cognizant Contracting Officer for the FFRDC must authorize in writing the use of the FFRDC on the proposed project and this authorization must be submitted with the application. The following wording is acceptable for this authorization:

Authorization is granted for the Laboratory to participate in the proposed project. The work proposed for the Laboratory is consistent with or complementary to the missions of the Laboratory and will not adversely impact execution of the DOE assigned programs at the Laboratory.

Funding, Cost Share, and Subaward with FFRDCs

The value of and funding for the FFRDC portion of the work will not normally be included in the award. DOE FFRDCs participating as a subrecipient on a project will be funded directly through the DOE Work

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Authorization process in accordance with DOE O 412.1A. Non-DOE FFRDCs participating as a subrecipient will be funded through an interagency agreement with the sponsoring agency.

Although the FFRDC portion of the work is excluded from the award, the applicant's cost share requirement will be based on the total cost of the project, including the applicant's, the subrecipient's, and the FFRDC's portions of the project.

All DOE FFRDCs are required to enter into a Cooperative Research and Development Agreement⁶ (CRADA) or, if the role of the DOE FFRDC is limited to technical assistance and intellectual property is not anticipated to be generated from the DOE FFRDC's work, a Technical Assistance Agreement (TAA), with at least the recipient. A fully executed CRADA or TAA must be in place or be compliant with a Master Scope of Work process prior to the FFRDC starting work directly allocable to the FA award.

A CRADA is used to ensure accountability for project work and provide the appropriate management of IP, e.g., data protection and background IP. A Data Management Plan is not suited for this purpose.

Limit on FFRDC Effort

The scope of work to be performed by the FFRDC should not be more significant than the scope of work to be performed by the applicant.

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⁶ A cooperative research and development agreement is a contractual agreement between a national laboratory contractor and a private company or university to work together on research and development. For more information, see https://www.energy.gov/gc/downloads/doe-cooperative-research-and-development-agreements



III. Program Description

A. Program Purpose

The Advanced Materials and Manufacturing Technologies Office (AMMTO) supports the development of a globally competitive U.S. energy industrial base that drives supply chain resiliency and energy security through materials and manufacturing innovation. Recently, AMMTO led the development and publication of an EERE-wide report entitled Circularity for Secure and Sustainable Products and Materials: A Draft Strategic Framework, along with a request for information (RFI). This document describes EERE's goals and efforts in circularity across the product and material segments that are most important to clean energy technologies. It also identifies challenges and opportunities to leverage circularity for driving industrial competitiveness, securing supply chains, reducing environmental impacts, benefiting communities, and creating jobs. The draft strategic framework highlights the importance of the market landscape in determining the ease and likelihood of success of technology adoption for circular supply chains, and how such factors can be unique to each product and material segment. In particular, non-technical market factors (i.e., market conditions, supply chain dynamics, policy and regulatory landscape, workforce readiness, infrastructure capabilities) must be understood as these may result in either barriers or pathways to adoption for specific emerging technologies. Analysis is needed to identify future research opportunities in the context of these non-technical market factors, and an array of stakeholders with synergistic technology needs and capabilities must be connected to carry it out.

A centralized effort to assess the full landscape of circular supply chain technologies and its intersection with these factors has not yet been undertaken. Such assessments would support EERE's ongoing and past portfolio of investments in innovations for circular supply chains by identifying promising avenues for adoption and enabling targeted investments with high likelihood of industrial impact. This NOFO establishes a program whose purpose is to address this need and develop: (1) a comprehensive understanding of the landscape of technical and the non-technical factors that could impact the adoption of emerging technologies and (2) strong connections across the circularity field to accelerate innovations from R&D-scale to commercial practice. We are in a unique moment where the growing awareness of and investment in circular supply chains are driving technological advancements. This is an important opportunity for the United States to benefit from the building momentum and take ambitious actions that will advance development and adoption of circular supply chains.

B. Program Goals and Objectives

The ultimate goal of this program is to accelerate the deployment of innovations for circular supply chains to improve security and reduce environmental impacts, supporting a robust and competitive manufacturing sector. Through complementary analyses outside of this accelerator, EERE will investigate which product and material market segments have high potential for positively impacting economywide goals related to industrial competitiveness, resiliency of supply, and environmental sustainability. This NOFO seeks applications to form an accelerator that will conduct deep dives into these identified market segments to do the following:

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⁷ U.S. Department of Energy Solicits Feedback on Its Plan To Increase Products and Materials Circularity | Department of Energy



- Identify technology deployment pathways for advancing circular supply chains in prioritized market segments through analysis of technical and non-technical market factors that influence how these technologies can scale within and across market segments. Further, identify synergistic opportunities to leverage emerging technologies, business models and market tools (e.g., standards, offtake agreements, verification frameworks, data systems, etc.) for circular supply chains across multiple product and material market segments.
- 2. Engage with stakeholders within and across product and material market segments to support the technology and market analysis and facilitate coordination on technology advancement and adoption.

C. Expected Performance Goals

The performance goals for this accelerator include the following:

- Production of publicly available, high impact reports that inform technology development efforts
 and stakeholder engagement on circular supply chains. These analysis reports should be produced
 at a frequency to effectively inform short- and long-term R&D investment strategies in this space
 across federal agencies, academia and the private sector.
- Effectiveness of building strong connections across the circularity field as measured through: (1)
 engagement of stakeholders on analysis reports and in convening forums held by the Accelerator, (2)
 breadth of the stakeholder base in terms of its composition, (3) strength of relationships within the
 stakeholder engagement activities and (4) engagement of stakeholders in technology R&D efforts
 focused on circular supply chains.

D. Teaming Partner List

DOE is compiling a Teaming Partner List to facilitate the formation of project teams for this NOFO. The Teaming Partner List allows organizations that may wish to participate on a project to express their interest to other applicants and explore potential partnerships.

The Teaming Partner List will be available on eXCHANGE and will be regularly updated to reflect new teaming partners who provide their organization's information.

SUBMISSION INSTRUCTIONS: View the Teaming Partner List by visiting the eXCHANGE homepage and clicking on "Teaming Partners" within the left-hand navigation pane. This page allows users to view published Teaming Partner Lists. To join the Teaming Partner List, submit a request within eXCHANGE. Select the appropriate Teaming Partner List from the drop-down menu and fill in the following information: Investigator Name, Organization Name, Organization Type, Topic Area, Background and Capabilities, Website, Contact Address, Contact Email, and Contact Phone.

DISCLAIMER: By submitting a request to be included on the Teaming Partner List, the requesting organization consents to the publication of the above-referenced information. By facilitating the Teaming Partner List, DOE is not endorsing, sponsoring, or otherwise evaluating the qualifications of the individuals and organizations that are identifying themselves for placement on this Teaming Partner List.

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DOE will not pay for the provision of any information, nor will it compensate any applicants or requesting organizations for the development of such information.

E. Topic Areas

Topic 1: The Circular Supply Chains Accelerator

Efforts to achieve a robust and competitive manufacturing sector through innovation in circular supply chains cannot be successful without: (1) a comprehensive understanding of the landscape of technical and the non-technical factors that could impact the adoption of emerging technologies and (2) strong connections across the circularity field to accelerate innovations from R&D-scale to commercial practice. This topic seeks to establish a new accelerator which will address this need through the development of a comprehensive technical and market analysis portfolio and stakeholder engagement activities. As stated above, the objectives of this accelerator and program are to:

- Identify technology deployment pathways for advancing circular supply chains in priority market segments through analysis of technical and non-technical market factors that influence how these technologies can scale within market segments and across multiple market segments. Further, identify synergistic opportunities to leverage emerging technologies, business models and market tools (e.g., standards, offtake agreements, verification frameworks, data systems, etc.) for circular supply chains across multiple product and material market segments.
- 2. Engage with stakeholders within and across product and material segments to support the technology and market analysis and facilitate coordination on technology advancement and adoption.

The lead entity and any partners in the Accelerator should have expertise in circular supply chains with emphasis on understanding the full landscape of technical and non-technical factors impacting the adoption of emerging technologies for circular supply chains. If the proposed accelerator will be made of multiple entities, the applicant should describe how they will work collaboratively. Each of the objectives listed above are described in the remainder of this section.

Objective 1. Identifying Pathways for Circular Supply Chains

The Accelerator will develop an analysis portfolio that will establish a comprehensive understanding of both technical and non-technical factors impacting the adoption of emerging technologies for circular supply chains. Technical factors of interest include the state of emerging technologies in terms of performance and cost metrics. Awareness of these technical factors requires strong understanding of the R&D landscape as well as the state of industrial practice. Non-technical factors of interest include market conditions, supply chain dynamics, policy and regulatory landscape, workforce readiness, and infrastructure capabilities, among others. These non-technical market factors may be region-specific and would be critical to inform a systems-level perspective of potential barriers and pathways to widespread commercial adoption. The Accelerator will leverage understanding of technical and non-technical factors to analyze market opportunity within specific product and material market segments. The outputs of this analysis are expected to identify: (1) what are the specific product and material market segments where technical/non-technical factors favor implementation of circular supply chain innovations, (2) what are ideal technical/non-technical pathways to

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move from first adopter to full scale deployment across market segments. Applicants must comprehensively describe their approach to these analyses in specific terms, including the underlying modeling theory or methods framework to be employed, modeling assumptions, types of data and data sources, approach to modeling uncertainty and other details critical toward understanding the efficacy of the analysis effort. Applicants should also describe how their analytical framework will be used to determine the impact of potential business models and market tools that could incentivize circular supply chains within specific market segments of interest. Opportunities to leverage advancements in emerging technologies and market tools (e.g., standards, offtake agreements, verification frameworks, data systems, etc.) across product and material market segments should also be identified.

Market segments of interest will be identified through complementary analyses outside of this program. EERE will establish which product and material market segments have high potential for positively impacting economy-wide goals related to industrial competitiveness, resiliency of supply, and environmental sustainability. The Accelerator will scope their analyses around this identified set of product and material market segments. Applicants can consult the *Circularity for Secure and Sustainable Products and Materials: A Draft Strategic Framework* for examples of products and materials that fall under current interest to EERE and the energy sector overall.

The Accelerator will deliver these analyses into publicly available, high impact reports that inform technology development efforts and stakeholder collaboration on circular supply chains. These analysis reports should be produced at a frequency to effectively inform short- and long-term R&D investment strategies in this space across federal agencies, academia and the private sector. Applicants must describe their approach to scoping, developing and producing these reports in terms of content and schedule so to be effective in terms of expectations of impact and timeliness. Planned approaches to updating these analyses based on new developments in technical and non-technical factors impacting the adoption of emerging technologies for circular supply chains should also be described. The Accelerator is expected to maximize the impact of these reports through well designed public dissemination activities. Applicants must describe their approach to public dissemination that includes the outputs of the analysis work, relevant compiled datasets, findings assessment of technical and non-technical factors, and corresponding feedback from stakeholder engagement activities. Applicants must describe how they will periodically and ultimately measure the success of their analysis efforts and optimize their approaches dynamically based on these program measurements.

Objective 2. Stakeholder Engagement to Advance Circular Supply Chains

The Accelerator's stakeholder engagement activities will engage a broad range of stakeholders that are critical to both supporting the analysis portfolio and to facilitating the coordination needed for technology adoption for circular supply chains. These stakeholder engagement activities will strengthen relationships with industry members to support increased sharing of data and best practices as there are many synergistic technology needs across different product and material segments. These programs will enable enhanced diffusion of advancements in emerging technologies, business models and market tools (e.g., standards, offtake agreements, verification frameworks, data systems, etc.) throughout the circularity field. Most importantly, these stakeholder engagement activities will establish and cultivate relationships between potential performer groups that will strengthen the innovation ecosystem needed to deliver on other funded programs focused on building circular supply chain technologies.

Applicants must describe their overall approach to stakeholder engagement activities, how it will support the goals of this objective as described immediately above and how this approach will also synergistically support the analysis activities of Objective 1. This includes the approach to identifying and incorporating critical

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stakeholders across the technical and market landscape. Specifically, applicants must clearly describe their approach to building teams in specific product and material market segments to be identified by EERE as having high potential for positively impacting economy-wide goals related to industrial competitiveness, resiliency of supply, and environmental sustainability. Applicants should also describe how their approach ensures insights of the different types of domestic entities critical to the advancement of circular supply chains for these market segments. The applicants should describe a comprehensive approach that will be used to encourage stakeholder input while addressing concerns related to proprietary data and information security. Finally, applicants must describe how they will periodically measure the success of their stakeholder engagement efforts and optimize their approaches dynamically based on these program measurements.

F. Applications Specifically Not of Interest

The following types of applications will be deemed nonresponsive and will not be reviewed or considered (Please also refer to the Responsiveness Review section below):

 Applications that fall outside the technical parameters specified in <u>Background and Context</u> above and the <u>Topic Areas</u> section above.

G.Statement of Substantial Involvement

DOE anticipates awarding cooperative agreements under this NOFO, which include a statement of DOE's "substantial involvement" in the work performed under the resulting awards. For cooperative agreements, DOE does not limit its involvement to the administrative requirements of the award. Instead, DOE has substantial involvement in the direction and redirection of the technical aspects of the project. DOE's substantial involvement in resulting awards may include the following:

- A. DOE shares responsibility with the recipient for the management, control, direction, and performance of the project.
- B. DOE may intervene in the conduct or performance of work under this award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.
- C. DOE may redirect or discontinue funding the project based on the outcome of DOE's evaluation of the project at the Go/No-Go decision point(s).
- D. DOE participates in major project decision-making processes.

H. Statutory Authority

The programmatic authorizing statute is 42 U.S.C. § 16191(a)(2)(C) "Energy Efficiency" Section 911 of EPACT 2005, as amended.

Awards made under this announcement will fall under the purview of 2 CFR Part 200 as adopted and supplemented by 2 CFR Part 910.

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IV. Application Content and Form

This section includes application information specific to this NOFO Part 1. Refer to the NOFO Part 2, *Application Content and Form* for standard information that applies to all DOE NOFOs such as formatting and content requirements, and funding restrictions.

A. Summary

The application process includes multiple submission phases: concept paper, application, and replies to reviewer comments.

Application Submission Phase	Eligibility for Submission	
Concept Paper	Required to be submitted by the specified due date and time to be eligible to submit an application	
Application	Must be submitted by the specified due date and time to be eligible for comprehensive merit review.	
Replies to Reviewer Comments	Required to be submitted by the specified due date and time.	

B. Concept Paper

Each concept paper must be limited to a single concept, technology, or project. The concept paper must conform to the requirements listed below, including the stated page limits.

Section	Page Limit	Description	
Cover Page	1 page maximum	The cover page should include the project title, the specific announcement Topic Area being addressed (if applicable), both the technical and business points of contact (including the Administrative Officer, if applicable), names of all team member organizations, the project location(s), and any statements regarding confidentiality.	
Technology Description	4 pages maximum	 Applicants are required to succinctly describe: How the team incorporates expertise in circular supply chains across technology development, market factors, business models, and policy; The team's experience with and approach to performing analysis and publicly disseminating their results; The proposed approach to mapping the current investment landscape of circular supply chains and the approach to identifying which analyses to perform for greatest impact; The team's experience with and approach to engaging with stakeholders; 	

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		 How the Accelerator will overcome the shortcomings, limitations, and challenges in the relevant field and application; The potential impact that the proposed project would have on the relevant field and application; The key risks/issues associated with the proposed project management plan; The impact that DOE funding would have on the proposed project; and Any potential impacts on Indian Tribes and describe how the applicant would engage with a potentially impacted Indian Tribe(s).
Addendum	1 pages maximum	 Applicants are required to succinctly describe the qualifications, experience, and capabilities of the proposed project team, including: Whether the Principal Investigator (PI) or Lead Project Manager (LPM) and project team have the skill and expertise needed to successfully execute the project plan; Whether the applicant has prior experience which demonstrates an ability to perform tasks of similar risk and complexity; Whether the applicant has worked together with its teaming partners on prior projects or programs; Whether the applicant has adequate access to tools and facilities necessary to accomplish the effort and/or clearly explain how it intends to obtain access to the necessary tools and facilities; and Applicants may provide graphs, charts, or other data to supplement their Technology Description.

Total concept paper Maximum Page Limit: 6 pages

DOE makes an independent assessment of each concept paper based on the technical review criteria for Concept Papers described below. DOE will encourage a subset of applicants to submit applications. Other applicants will be discouraged from submitting an application. Please see NOFO Part 2, Selection and Award Notices—Concept Paper Notifications.

C. Application Content Requirements

Each application must be limited to a single concept. Applications must conform to the following requirements and must not exceed the stated page limits. Please refer to the NOFO Part 2, Application Content and Form for a complete list of application requirements. Detailed guidance on the content and form of NOFO-specific requirements is provided following the Summary of Application Requirements table below.

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1. Covered Individual Definition, Designation, and Responsibility

Several of the Application Content Requirements listed below and in the NOFO Part 2 are required of covered individuals.

For the purposes of this NOFO, a Covered Individual means an individual who (a) contributes in a substantive, meaningful way to the development or execution of the scope of work of a project proposed for funding by DOE, and (b) is designated as a covered individual by DOE.

DOE 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 applicant is responsible for assessing the applicability of (a) above, against each person listed on the application. Further, the applicant is responsible for identifying any such individual to DOE for designation as a covered individual, if not already designated by DOE as described above.

The applicant's submission of a current and pending support disclosure and/or biosketch/resume for a particular person serves as an acknowledgement that DOE designates that person as a covered individual.

DOE may further designate covered individuals during award negotiations or the award period of performance.

1. Summary of Application Requirements

Component	File Format	Page Limit	File Name
Application for Federal Assistance	PDF	n/a	ControlNumber_LeadOrganization_
(SF-424)			424
Technical Volume	PDF	25	ControlNumber_LeadOrganization_
			TechnicalVolume
Letters of Commitment	PDF	1 page	ControlNumber_LeadOrganization_
		each	LOCs
Impacted Indian Tribes Documentation	PDF	n/a	ControlNumber_LeadOrganization_
			ImpactedTribes
Statement of Project Objectives	MS	10	ControlNumber_LeadOrganization_
	Word		SOPO
Budget Justification Workbook	MS	n/a	ControlNumber_LeadOrganization_
	Excel		Budget_Justification
Subrecipient Budget Justification	MS	n/a	ControlNumber_LeadOrganization_
	Excel		Subrecipient_Budget_Justification
Work Proposal for FFRDC, (see <u>DOE 0</u>	PDF	n/a	ControlNumber_LeadOrganization_
412.1A)			WP

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Authorization for Non-DOE or DOE FFRDCs	PDF	n/a	ControlNumber_LeadOrganization_ FFRDCAuth
Waiver for Foreign Entity Participation	PDF	n/a	ControlNumber_LeadOrganization_ FEW
Performance of Work in the United States (Foreign Work Waiver)	PDF	n/a	ControlNumber_LeadOrganization_ FWW
Community Partnership Documentation	PDF	[10]	ControlNumber_LeadOrganization_ PartnerDocs
Resumes (Non-Research and Development (R&D))	PDF	3 pages each	ControlNumber_LeadOrganization_ Resumes
Current and Pending Support (for each covered individual)	PDF	n/a	ControlNumber_LeadOrganization_ CPS
Transparency of Foreign Connections	PDF	n/a	BusinessSensitive_ControlNumber_ LeadOrganization_TFC
Potentially Duplicative Funding Notice	PDF	n/a	ControlNumber_LeadOrganization_ PDFN
Disclosure of Lobbying Activities, if applicable (SF-LLL)	PDF	n/a	ControlNumber_LeadOrganization_ SF-LLL
Certification Regarding Lobbying (OMB 4040-0013)	PDF	n/a	ControlNumber_LeadOrganization_ Cert Lobbying
Summary for Public Release	PDF	1	ControlNumber_LeadOrganization_ Summary
Summary Slide	MS Power Point	1	ControlNumber_LeadOrganization_ Slide

2. Technical Volume

The Technical Volume must conform to the following content and form requirements. This volume must address the technical review criteria as discussed in Technical Review Criteria.

Applicants must provide sufficient citations and references to the primary research literature to justify the claims and approaches made in the Technical Volume. However, DOE and reviewers are under no obligation to review cited sources.

The Technical Volume to the application may not be more than 25 pages, including the cover page, table of contents, and all citations, charts, graphs, maps, photos, or other graphics, and must include all information below. The applicant should consider the weighting of each of the technical review criteria (see <u>Technical Review Criteria</u>) when preparing the Technical Volume.

The Technical Volume should clearly describe and expand upon information provided in the concept paper.

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Technical Volume Content Requirements Overview		
Section	Approximate Percent Content of the Technical Volume	
Cover Page	N/A	
Project Overview	10%	
Technical Description, Innovation, and Impact	25%	
Workplan in Statement of Project Objectives	40%	
Technical Qualifications and Resources	25%	

Cover Page:

The cover page must include all of the following:

- The project title
- Technical and business POCs
- The project team, including recipient name, entity type and names of all team member organizations
- The project location(s)
- The proposed federal funding level, cost share and period of performance
- Senior/key personnel and other covered individuals
- Statements regarding confidentiality

Project Overview (Approximately 10% of the Technical Volume)

The Project Overview should contain the following information:

- **Background:** The applicant should discuss the background of its organization, including the history, successes, and current analysis and stakeholder engagement activities relevant to the technical topic being addressed in the application.
- **Project Goal:** The applicant should explicitly identify the targeted number of analysis outputs and stakeholder engagement events and the critical success factors in achieving these goals.
- **DOE Impact:** The applicant should discuss the impact that DOE funding would have on the proposed project. Applicants should specifically explain how DOE funding, relative to prior, current, or anticipated funding from other public and private sources, is necessary to achieve the project objectives.

Technical Description, Innovation, and Impact (Approximately 25% of the Technical Volume) The Technical Description should contain the following information:

- Relevance and Outcomes: The applicant should provide a detailed description of the approaches to mapping the investment landscape, identifying impactful analysis products and carrying out the analysis, and engaging with stakeholders. This section should describe the relevance of the proposed project to the goals and objectives of the NOFO, including the potential to meet specific DOE technical targets or other relevant performance targets. The applicant should clearly specify the expected outcomes of the project.
- **Feasibility:** The applicant should demonstrate the feasibility of the proposed approach to analysis and stakeholder engagement and the capability of achieving the anticipated performance targets, including a description of previous work done and prior results. This

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- section should also address the project's access to necessary tools (e.g., data and analysis tools) as well as to a skilled workforce.
- Innovation and Impacts: The applicant should describe the current state-of-the-art in the applicable field, the specific innovation and advantages of the proposed approach, and the overall impact on advancing the state-of-the-art if the project is successful.

Workplan (Approximately 40% of the Technical Volume)

The Workplan should include a summary of the Project Objectives, Technical Scope, Work Breakdown Structure (WBS), Project Tasks, Milestones, Go/No-Go decision points, and project schedule. A detailed statement of project objectives (SOPO) is separately requested as part of the application. The Workplan should contain the following information:

- **Project Objectives:** The applicant should provide a clear and concise (high-level) statement of the goals and objectives of the project as well as the expected outcomes.
- Work Scope Summary: The applicant should provide a summary description of the overall work scope and approach to achieve the objective(s). The overall work scope is to be divided by performance periods that are separated by discrete, approximately annual decision points (see below for more information on Go/No-Go decision points). The applicant should describe the specific expected end result of each performance period.
- WBS and Task Description Summary: The Workplan should describe the work to be accomplished and how the applicant will achieve the milestones, will accomplish the final project goal(s), and will produce all deliverables. The Workplan is to be structured with a hierarchy of performance period (approximately annual), task and subtasks, which is typical of a standard WBS for any project. The Workplan shall contain a concise description of the specific activities to be conducted over the life of the project. The description shall be a full explanation and disclosure of the project being proposed (i.e., a statement such as "we will then complete a proprietary process" is unacceptable). It is the applicant's responsibility to prepare an adequately detailed task plan to describe the proposed project and the plan for addressing the objectives of this NOFO. The summary provided should be consistent with the SOPO. The SOPO will contain a more detailed description of the WBS and tasks.
- Milestone Summary: The SOPO should provide a summary of appropriate milestones throughout the project to demonstrate progress and success. A milestone may be either a progress measure (which can be activity based) or a SMART technical milestone. SMART milestones should be Specific, Measurable, Achievable, Relevant, and Timely, and must demonstrate a technical achievement rather than simply completing a task. Unless otherwise specified in the NOFO, the minimum requirement is that each project must have at least one milestone per quarter for the duration of the project with at least one SMART technical milestone per year (depending on the project, more milestones may be necessary to comprehensively demonstrate progress). The applicant should also provide the means by which the milestone will be verified. The summary provided should be consistent with the Milestone Summary Table in the SOPO.
- Go/No-Go Decision Points: The applicant should provide a summary of project-wide Go/No-Go decision points at appropriate points in the Workplan. At a minimum, each project must have at least one project-wide Go/No-Go decision point for each budget period (12 to 18-month period) of the project. See the Key Facts section above for Go/No-Go and budget period information. The applicant should also provide the specific technical criteria to be used to evaluate the project at the Go/No-Go decision point. The summary provided should be consistent with the

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- SOPO. Go/No-Go decision points are considered "SMART" and can fulfill the requirement for an annual SMART milestone.
- **End of Project Goal:** The Workplan should include a summary of the end of project goal(s). At a minimum, each project must have one SMART end of project goal. The summary provided should be consistent with the SOPO.
- Project Schedule (Gantt Chart or similar): The applicant should provide a schedule for the entire
 project, including task and subtask durations, any milestones, and any Go/No-Go decision
 points.
- Build America Buy America (BABA) Requirements for Infrastructure Projects: Within the first
 two pages of the Workplan, include a short statement on whether the project will involve the
 construction, alteration, maintenance and/or repair of public infrastructure in the United States.
 See <u>Build America</u>, <u>Buy America</u> | <u>Department of Energy</u> and 2 CFR 184 for applicable definitions
 and other information regarding Infrastructure Projects and the Buy America Requirement.
- Project Management: The applicant should discuss the team's proposed management plan, including the following:
 - The overall approach to and organization for managing the work;
 - The roles of each project team member;
 - Any critical handoffs/interdependencies among project team members;
 - The technical and management aspects of the management plan, including systems and practices, such as financial and project management practices;
 - The approach to project risk management, including a plan for securing a qualified workforce and mitigating risks to project performance including but not limited to community or labor disputes or conflicts related to siting;
 - Approach to addressing permits and tory approvals, including compliance with any current permits, and any permits and natural or cultural resource issues that could require discretionary permits or approvals;
 - A description of how project changes will be handled;
 - o If applicable, the approach to Quality Assurance/Control;
 - How communications will be maintained among project team members.

Technical Qualifications and Resources (Approximately 25% of the Technical Volume)

The Technical Qualifications and Resources should contain the following information:

- A description of the project team's unique qualifications and expertise, including those of key subrecipients;
- A description of the project team's existing tools and facilities, or tools or facilities already in
 place on the proposed project site, that will facilitate the successful completion of the proposed
 project; include a justification of any new tools or facilities requested as part of the project;
- Relevant, previous work efforts, demonstrated innovations, and how these enable the applicant to achieve the project objectives;
- The time commitment of the key team members to support the project;
- A description of the technical services to be provided by DOE FFRDCs, if applicable;
- The skills, certifications, or other credentials of the construction and ongoing operations workforce;
- For multi-organizational projects, describe succinctly:
 - The roles and the work to be performed by the project manager and Senior/Key Personnel at the recipient and sub levels;
 - Business agreements between the applicant and sub;

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- How the various efforts will be integrated and managed;
- o Process for making decisions on technical direction;
- Publication arrangements;
- Strategy to address known resource, including intellectual property and real property, constraints or challenges; and
- Communication plans.

D. Funding Restrictions

Program-specific funding restrictions applicable to awards funded under this NOFO are identified below. Standard funding restrictions are described in the NOFO Part 2, *Funding Restrictions* section.

Applicable Funding Restrictions				
Title	Location	Additional Information		
Allowable Costs	NOFO Part 2	Applicable to awards made under this NOFO		
Pre-Award Costs	NOFO Part 2	Applicable to awards made under this NOFO		
Performance of Work in the United States (Foreign Work Waiver Requirement)	NOFO Part 2	Applicable to awards made under this NOFO		
Foreign Travel	NOFO Part 2	Foreign Travel is allowed for awards made under this NOFO with prior DOE approval.		
Lobbying	NOFO Part 2	Applicable to awards made under this NOFO		
Equipment and Supplies	NOFO Part 2	Purchasing American-made equipment and supplies is applicable to this award.		
Build America Buy America Requirements for Infrastructure Projects	NOFO Part 1	Applicable to awards made under this NOFO		

1. Build America Requirement for Infrastructure Projects

Awards funded through this NOFO that are for, or contain, construction, alteration, maintenance, or repair of public infrastructure in the United States undertaken by applicable recipient types, require that:

- All iron, steel, and manufactured products used in the infrastructure project are produced in the United States; and
- All construction materials used in the infrastructure project are manufactured in the United States.

Please refer to the NOFO Part 2, Buy America Requirements for Infrastructure Projects; Required Use of American Iron, Steel, Manufactured Products, and Construction Materials and 2 CFR Part 184 to determine whether the Buy America Requirement applies and if they should consider the application of the Buy America Requirement in the proposed project's budget and/or schedule. (Note that the Buy America Requirement does not apply to prime recipients that are For-Profit Entities.)

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V. Submission Requirements and Deadlines

There are several one-time actions applicants must take before applying to this NOFO. Some of these may take several weeks, so it is vital applicants build in enough time to complete them. Failure to complete these actions could interfere with application or negotiation deadlines or the ability to receive an award if selected. These requirements are outlined in detail in the NOFO Part 2, *Get Registered*.

A. Required Registrations

1. Unique Entity Identifier (UEI) and System for Award Management (SAM)

You must have an active account with SAM.gov. This includes having a Unique Entity Identifier (UEI). SAM.gov registration can take several weeks. To register, go to SAM.gov Entity Registration and click Get Started. From the same page, you can also click on the Entity Registration Checklist for the information you will need to register.

Each applicant must:

- 1. Be registered in SAM.gov before submitting an application;
- 2. Provide a valid Unique Entity Identifier in the application;
- 3. **Note**: Subawardees/subrecipients at all tiers must also obtain a UEI from the SAM and provide the UEI to the recipient before the subaward can be issued; and
- 4. Continue to maintain an active registration in SAM.gov with current information at all times during which you have an active federal award or an application or plan under consideration by a federal agency.

DOE may not make a federal award to an applicant until the applicant has complied with all applicable UEI and SAM requirements and, if an applicant has not fully complied with the requirements by the time DOE is ready to make a federal award, the DOE will determine that the applicant is not qualified to receive a federal award and use that determination as a basis for making a federal award to another applicant.

2. eXCHANGE

Register and create an account in the eXCHANGE site identified in the Key Facts section of the NOFO Part 1. This account can be used to apply to open NOFOs in eXCHANGE. To view and submit applications to open opportunities under a specific DOE office(s), you must access the applicable instance of the system. You may need to be registered in more than one instance to submit applications for opportunities managed by different DOE offices.

Each organization or business unit, whether acting as a team or a single entity, should use only one account as the contact point for each submission. Applicants must also designate backup points of contact. This step is required to apply to this NOFO.

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B. Application Package

1. eXCHANGE

The application package requirements are outlined in the <u>Application Content and Form</u> section above. Several templates for application requirements are included in eXCHANGE. To access these materials, select the appropriate NOFO on the Funding Opportunity page of eXCHANGE.

Note: The maximum file size that can be uploaded to the eXCHANGE website is 50MB. Files larger than 50MB cannot be uploaded and hence cannot be submitted for review. If a file is larger than 50MB but is still within the maximum page limit specified in the NOFO, it must be broken into parts and denoted to that effect. For example:

- TechnicalVolume_Part_1
- TechnicalVolume_Part_2

DOE will not accept late submissions that resulted from technical difficulties due to uploading files that exceed 50MB.

Electronic Authorization of Applications and Award Documents

Submission of an application and supplemental information under this NOFO through electronic systems used by the DOE, including eXCHANGE, constitutes the authorized representative's approval and electronic signature.

C. Submission Date and Times

All required submissions must be submitted to the eXCHANGE site identified in the <u>Key Facts</u> section of NOFO Part 1 no later than 5 p.m. ET on the dates provided on <u>Key Facts</u> section. There may be more than one deadline, depending on whether a letter of intent and a concept paper is required.

Applicants are strongly encouraged to submit all required application documents at least 48 hours in advance of the submission deadline. Under normal conditions (i.e., at least 48 hours before the submission deadline), applicants should allow at least one hour to submit application documents. Once the application documents are submitted in the eXCHANGE site identified in the NOFO Part 1, applicants may revise or update that submission until the expiration of the applicable deadline. If changes are made to any of these documents, the applicant must resubmit them before the applicable deadline. DOE will not extend the submission deadline for applicants that fail to submit required information by the applicable deadline due to server/connection congestion. Please contact the eXCHANGE helpdesk for any issues arising from uploading application documents to the eXCHANGE system.

D. Intergovernmental Review

This NOFO is not subject to Executive Order 12372, Intergovernmental Review of Federal Programs.

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VI. Application Review Information

A. Standards for Application Evaluation

Applications that are determined to be eligible will be evaluated in accordance with this NOFO, by the standards set forth in EERE's Notice of Objective Merit Review Procedure (76 Fed. Reg. 17846, March 31, 2011 and the guidance provided in the "DOE Merit Review Guide for Financial Assistance," effective October 1, 2020, which is available at: https://energy.gov/management/downloads/merit-review-guide-financial-assistance-and-unsolicited-proposals-current.

B. Responsiveness Review

The following concept papers and applications will be deemed nonresponsive and will not be reviewed or considered:

- Project concepts or approaches not based on established scientific principles.
- Project concepts or approaches identified specifically as NOT of interest (see the <u>Applications Specifically Not of Interest</u> section above).

C. Review Criteria

1. Compliance Criteria

All applicant submissions for concept papers and applications must:

- Comply with the applicable content and form requirements listed in Application Content Requirements and Submission Requirements and Deadlines of the NOFO Part 1 and 2;
- Include all required documents;
- Be uploaded successfully in eXCHANGE site indicated in the <u>Key Facts</u> section above including clicking the "Submit" button; and
- Comply with the submission deadline stated in Key Facts.

DOE will not review or consider submissions submitted through means other than the eXCHANGE site indicated in <u>Key Facts</u>, submissions submitted after the applicable deadline, or incomplete submissions.

If required in the <u>Key Facts</u> section, applicants must submit a concept paper by 5:00 p.m. ET on the due date listed on the <u>Key Facts</u> section to be eligible to submit an application. If required, applicants who do not submit a concept paper are not eligible to submit an application.

Applicants are strongly encouraged to submit all required application documents at least 48 hours in advance of the submission deadline. Under normal conditions (i.e., at least 48 hours before the submission deadline), applicants should allow at least one hour to submit application documents. Once the application documents are submitted in the eXCHANGE site identified in the Key Facts section, applicants may revise or update that submission until the expiration of the applicable deadline. If changes are made to any of these documents, the applicant must resubmit them before the applicable deadline. DOE will not extend the submission deadline for applicants that fail to submit required information by the applicable deadline due to server/connection congestion. Please contact the

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eXCHANGE helpdesk for any issues arising from uploading application documents to the eXCHANGE system.

2. Technical Review Criteria

Concept Papers

Concept papers are evaluated based on consideration of the following factors. All sub-criteria are of equal weight.

Concept paper Criterion: Overall NOFO Responsiveness and Viability of the Project (Weight: 100%) This criterion involves consideration of the following factors:

- The applicant clearly describes the proposed accelerator, how the Accelerator will approach
 analysis and stakeholder engagement, and how the Accelerator will advance the current state of
 the art;
- The applicant has identified risks and challenges of the proposed work and has shown the impact that DOE funding and the proposed project would have on the relevant field and application;
- The applicant has the qualifications, experience, capabilities, and other resources necessary to complete the proposed project, including demonstrated experience in analysis and stakeholder engagement; and
- The proposed work, if successfully accomplished, would clearly meet the objectives as stated in the NOFO.

Applications

Applications will be evaluated against the technical review criteria shown below. All sub-criteria are of equal weight.

Review Criterion Overview		
Criterion Weight		
Technical Merit, Innovation, and Impact	40%	
Project Demonstration Plan	25%	
Team and Resources	35%	

Criterion 1: Technical Merit, Innovation, and Impact (40%)

This criterion involves consideration of the following factors:

Technical Merit and Innovation

- 1. Extent to which the proposed accelerator is innovative and likely to advance the state-of-theart:
- Degree to which the current state of the field and the proposed advancement are clearly described;
- 3. Extent to which the application specifically and convincingly demonstrates how the applicant will achieve the goals of the NOFO;
- 4. Sufficiency of detail in the application to assess whether the proposed work is meritorious, including relevant discussion of prior work with analyses and stakeholder engagement;
- Extent to which project has buy-in from needed stakeholders to ensure success;

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- 6. Degree to which key manufacturing and supply chain challenges are considered, as applicable, for engaging with key stakeholders across circular supply chains; and
- 7. Extent to which project has the potential to advance the adoption of circular technologies and provide clean energy acceleration benefits for a community or region.

Impact of Technology Advancement

- 1. Ability of the project to advance industry adoption;
- 2. Extent to which the project supports the topic area objectives and target specifications and metrics;
- 3. Potential impact of the project on advancing the state of the art;
- 4. Extent to which the project facilitates stakeholder relationships across new or existing stakeholders to gain technical buy-in and increase potential for future deployments.

Project Management

- 1. Adequacy of proposed project management systems including the ability to track scope, cost, and schedule progress and changes;
- 2. Reasonableness of budget and spend plan as detailed in the budget justification workbook for proposed project and objectives;
- 3. Adequacy of contingency funding based on quality of cost estimate and identified risks;
- 4. Adequacy, reasonableness, and soundness of the project schedule, as well as periodic Go/No-Go decisions prior to further funds disbursement, interim milestones, and metrics to track process;
- 5. Adequacy, reasonableness, and soundness of the project schedule, as well as annual Go/No-Go decisions prior to a budget period continuation application, interim milestones, and metrics to track process;
- 6. Adequacy of the identification of risks, and "timely" and appropriate strategies for mitigation and resolution; and
- 7. Completeness, comprehensiveness, accuracy, and strength of the application deliverables, such that DOE and independent experts will be able to identify project risk.

Criterion 2: Project Demonstration Plan (25%)

This criterion involves consideration of the following factors:

Research and Demonstration Approach, Workplan, and SOPO

- 1. Degree to which the approach and critical path have been clearly described and thoughtfully considered; and
- 2. Degree to which the task descriptions are clear, detailed, timely, and reasonable, resulting in a high likelihood that the proposed Workplan and SOPO will succeed in meeting the project goals.

Identification of Risks

- 1. Discussion and demonstrated understanding of the key risk areas involved in the proposed work and the quality of the mitigation strategies to address them.
- 2. Discussion of the key scheduling and cost increase risks involved in the proposed work and the quality of the mitigation strategies to address them.

Baseline, Metrics, and Deliverables

1. Level of clarity in the definition of the metrics and milestones; and

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2. Relative to the goals of the NOFO, the strength of the quantifiable metrics, milestones, and midpoint deliverables defined in the application, such that meaningful interim progress will be made.

Criterion 3: Team and Resources (35%)

This criterion involves consideration of the following factors:

- 1. Capability of the project manager(s) and the proposed team to address all aspects of the proposed work with a high probability of success. The qualifications, relevant expertise, and time commitment of the individuals on the team;
- 2. Diversity of expertise and perspectives of the team and their ability to work together to amplify impact;
- 3. Sufficiency of the facilities to support the work;
- 4. Level of participation by project participants as evidenced by letter(s) of commitment and how well they are integrated into the Workplan; and
- 5. Reasonableness of the budget and spend plan for the proposed project and objectives.

3. Criteria for Replies to Reviewer Comments

DOE has not established separate criteria to evaluate Replies to Reviewer Comments. Instead, Replies to Reviewer Comments are attached to the original applications and evaluated as an extension of the application.

D. Other Selection Factors

In addition to the above criteria, the Selection Official may consider the following program policy factors in determining which applications to select for award negotiations:

- 1. The degree to which the proposed project exhibits technological diversity when compared to the existing DOE project portfolio and other projects selected from the subject NOFO;
- 2. The degree to which the proposed project, including proposed cost share, optimizes the use of available DOE funding to achieve programmatic objectives;
- 3. The level of industry involvement and demonstrated ability to accelerate demonstration and commercialization and overcome key market barriers;
- 4. The degree to which the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty;
- 5. The degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications);
- The degree to which the proposed project incorporates applicant or team members from
 Minority Serving Institutions; and partnerships with businesses majority owned or controlled by
 underrepresented persons or groups of underrepresented persons or Indian Tribes;
- 7. The degree to which the proposed project, when compared to the existing DOE project portfolio and other projects to be selected from the subject NOFO, contributes to the total portfolio.

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- 1. The degree to which the proposed project avoids duplication/overlap with other publicly or privately funded work.
- 2. The degree to which the proposed project supports complementary efforts or projects, which, when taken together, will best achieve the research goals and objectives.
- 3. The degree to which the project promotes increased coordination with nongovernmental entities for demonstration of technologies and research applications to facilitate technology transfer.

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VII. Selection and Award Notices

Please see the NOFO Part 2, *Selection and Award Notices* for information on notifications for Concept Papers (if applicable), Applications, Award Negotiations, and Post-Selection Information Requests.

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VIII. Award Administration Information

A. Post-Award Requirements and Administration

DOE requires all award recipients to follow and accept requirements governed by laws and policies — both federal government-wide and DOE or program specific. These post-award requirements include all National and Administrative Policy Requirements; financial assistance general Certifications and Representations; Build America, Buy America requirements; Davis-Bacon Act requirements; Bipartisan Infrastructure Law-Specific Requirements; Fraud, Waste and Abuse requirements; Safety, Security, and Regulatory requirements; and Environmental Review in Accordance with National Environmental Policy Act requirements.

Post-Award requirements and administration applicable to awards funded under this NOFO are identified below. Detailed descriptions of standard funding restrictions are provided in the NOFO Part 2, *Post-Award Requirements and Administration* section. Detailed descriptions of program specific funding restrictions are provided below the table.

Applicable Post-Award Requirements and Administration		
Title	Location	
Award Administrative Requirements	NOFO Part 2	
Subaward and Executive Reporting	NOFO Part 2	
National Policy Requirements	NOFO Part 2	
Applicant Representations and Certifications	NOFO Part 2	
Statement of Federal Stewardship	NOFO Part 2	
Uniform Commercial Code (UCC) Financing Statements	NOFO Part 2	
Interim Conflict of Interest Policy for Financial Assistance	NOFO Part 2	
Whistleblower Protections	NOFO Part 2	
Fraud, Waste, and Abuse	NOFO Part 2	
Participants and Collaborating Organizations	NOFO Part 2	
Current and Pending Support	NOFO Part 2	
Prohibition Related to Malign Foreign Talent Recruitment Programs	NOFO Part 2	
Foreign Collaboration Considerations	NOFO Part 2	
U.S. Manufacturing Commitments	NOFO Part 2	
Subject Invention Utilization Reporting	NOFO Part 2	
Intellectual Property Provisions	NOFO Part 2	
Go/No-Go Review	NOFO Part 2	
Conference Spending	NOFO Part 2	
Invoice Review and Approval	NOFO Part 2	
Cost-Share Payment	NOFO Part 2	

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Implementation of Executive Order 13798, Promoting Free Speech and Religious Liberty	NOFO Part 2
Affirmative Action and Pay Transparency Requirements	NOFO Part 2
Human Subjects Research	NOFO Part 2
Real Property and Equipment	NOFO Part 1
Rights in Technical Data	NOFO Part 1

1. Real Property and Equipment

Real property and equipment purchased with project funds (federal share and recipient cost share) are subject to the requirements at 2 CFR 200.310, 200.311, 200.313, and 200.316 (non-federal entities, except for-profit entities) and 2 CFR 910.360 (for-profit entities).

For resulting awards under this NOFO, the recipients may (1) take disposition action on the real property and equipment; or (2) continue to use the real property and equipment after the conclusion of the award period of performance with Grants Officer approval. The recipient's written request for Continued Use must identify the property and include: a summary of how the property will be used (must align with the authorized project purposes); a proposed use period, (e.g., perpetuity, until fully depreciated, or a calendar date when the recipient expects to submit disposition instructions); acknowledgement that the recipient shall not sell or encumber the property or permit any encumbrance without prior written DOE approval; current fair market value of the property; and an estimated useful life or depreciation schedule for equipment.

When the property is no longer needed for authorized project purposes, the recipient must request disposition instructions from DOE. For-profit entity disposition requirements are set forth in 2 CFR 910.360. Property disposition requirements for other non-federal entities are set forth in 2 CFR 200.310 – 200.316. In addition, pursuant to the FY23 Consolidated Appropriations Act (Pub. L. No. 117-328), Division D, Title III, Section 309, at the end of the award period the Secretary or a designee of the Secretary, at their discretion, may vest unconditional title or other property interests acquired under this project regardless of the fair market value of the property.

2. 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.

"Limited Rights Data": The U.S. government will not normally require delivery of confidential or tradesecret-type 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 Produced Under Awards: The U.S. government retains unlimited rights in technical data produced under government financial assistance awards, including the right to distribute to the public. One exception to the foregoing is that invention disclosures may be protected from public disclosure for a reasonable time in order to allow for filing a patent application.

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3. Cost Share Payment

DOE requires recipients to contribute the cost share amount incrementally over the life of the award. Specifically, the recipient's cost share for each **billing period** must always reflect the overall cost share ratio negotiated by the parties (i.e., the total amount of cost sharing on each invoice when considered cumulatively with previous invoices must reflect, at a minimum, the cost sharing percentage negotiated).

B. Helpful Websites

Office of Energy Efficiency & Renewable Energy | Department of Energy EERE Application Process

C. Questions and Support

1. Questions

Upon the issuance of a NOFO, DOE personnel are prohibited from communicating (in writing or otherwise) with applicants regarding the NOFO except through the established question and answer process described below. Questions regarding this NOFO must be submitted to Circularity.NOFO.FY25@ee.doe.gov no later than three (3) business days prior to the application due date and time. Please note, feedback on individual concepts will not be provided through Q&A.

All questions and answers related to this NOFO will be posted on the eXCHANGE site listed in the <u>Key Facts</u> section above. You must first select the NOFO Number to view the questions and answers specific to this NOFO. DOE will attempt to respond to a question within three (3) business days unless a similar question and answer has already been posted on the website.

Questions related to the registration process and use of the eXCHANGE site listed in the <u>Key Facts</u>. should be submitted to EERE-ExchangeSupport@hq.doe.gov.

2. Support

Grants.gov

Grants.gov provides 24/7 support. You can call 1-800-518-4726 or email support@grants.gov. Hold on to your ticket number.

SAM.gov

If you need help, you can call 866-606-8220 or live chat with the Federal Service Desk.

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IX. Other Information

Please see the NOFO Part 2, *Other Information* for additional information and requirements that apply to all DOE NOFOs.

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