

**Financial Assistance
Notice of Funding Opportunity
Part 1**



U.S. DEPARTMENT *of* ENERGY

**Department of Energy (DOE)
Office of Manufacturing and Energy Supply Chains
Infrastructure Investment and Jobs Act (IIJA): Rare Earth
Elements Demonstration Facility
Notice of Funding Opportunity Number: DE-FOA-0003587**

Application due: January 20, 2026, at 5:00 PM ET

Modifications

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

Mod. No.	Date	Description of Modification
1	12/10/2025	<p>Extension of Letter of Intent deadline from December 10, 2025, to December 17, 2025.</p> <p>Extension of Application Deadline from January 5, 2026, to January 20, 2026.</p> <p>Extension of Anticipated Selection Notification Date from January 2026 to February 2026.</p> <p>Extension of Anticipated Award Date from March 2026 to April 2026.</p>

Table of Contents

BEFORE YOU BEGIN	5
Navigating the Notice of Funding Opportunity	5
I. BASIC INFORMATION	6
A. Key Facts.....	6
1. Funding Details	7
2. Period of Performance	7
B. Executive Summary	7
C. Teaming Partner List	8
D. Related DOE Efforts	8
E. Agency Contact Information	8
II. ELIGIBILITY	10
A. Eligible Applicants.....	10
1. Restricted Eligibility	10
2. Domestic Entities	10
3. Foreign Entity Participation	11
4. Performance of Work in the United States	11
5. Ineligible Participants	11
B. Limitation on Number of Letters of Intent and Applications Eligible for Review	11
C. Cost Sharing	12
1. Cost Share Requirements	12
2. Unallowable Cost Share Sources, NOFO Specific	12
D. FFRDC Eligibility Criteria.....	12
1. DOE and Non-DOE FFRDCs as a Subrecipient	12
III. PROGRAM DESCRIPTION	14
A. Background and Context.....	14
B. Program Purpose	14
C. Program Goals and Objectives	15
D. Expected Performance Goals	16
E. Topic Areas	19
F. Applications Specifically Not of Interest	19
G. Statement of Substantial Involvement.....	20
H. Statutory Authority.....	20
IV. APPLICATION CONTENT AND FORM.....	21
A. Use and Disclosure of Application Information	21
B. Summary	22
C. Letter of Intent	22
D. Application Content Requirements	23
1. Covered Individual Definition, Designation, and Responsibility	23
2. Summary of Application Requirements.....	24
3. Technical Volume	25
4. Resumes for Research and Development (R&D) NOFOs.....	31
5. Current and Pending (Other) Support	32
6. 40205 Application Data Sheet and Workbook	36

7. Financial Model	37
8. Financing Documentation	37
E. Funding Restrictions	37
1. Build America Buy America Requirements for Infrastructure Projects	38
2. Entities Submitting to both MESC and LPO Programs	38
V. SUBMISSION REQUIREMENTS AND DEADLINES.....	39
A. Required Registrations.....	39
1. Unique Entity Identifier (UEI) and System for Award Management (SAM)	39
2. eXCHANGE	39
3. Grants.gov Registration	39
B. Application Package.....	40
1. eXCHANGE	40
C. Submission Date and Times	40
D. Intergovernmental Review	40
VI. APPLICATION REVIEW INFORMATION	41
A. Standards for Application Evaluation.....	41
B. Responsiveness Review	41
C. Review Criteria	41
1. Compliance Criteria	41
2. Technical Review Criteria	42
D. Other Selection Factors.....	44
VII. SELECTION AND AWARD NOTICES	45
VIII. AWARD ADMINISTRATION INFORMATION	46
A. Post-Award Requirements and Administration.....	46
1. Real Property and Equipment	46
2. Go/No-Go Review.....	47
3. Cybersecurity Plan	48
4. Rights in Technical Data	48
5. Invoice Review and Approval	49
6. Cost Share Payment	49
7. Intellectual Property and Data Security for Critical and Emerging Technology Areas	49
8. Material Supply Plan.....	50
B. Helpful Websites.....	50
C. Questions and Support	50
1. Questions.....	50
2. Support.....	50
IX. OTHER INFORMATION	52
A. Acronyms.....	52



Before You Begin

Navigating the Notice of Funding Opportunity

To reduce the burden on applicants in the Notice of Funding Opportunity (NOFO) process and limit the length of the NOFO information requests, 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 references 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. To apply, please register with the System for Award Management (SAM) at [SAM.gov](https://sam.gov). This includes having a Unique Entity Identifier (UEI). 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 DE-FOA-0003587.



I. Basic Information

A. Key Facts

Issuing Agency	Department of Energy, Office of Manufacturing and Energy Supply Chains	KEY DATES Notice of Funding Opportunity Issue Date: December 1, 2025 Informational Webinar: December 9, 2025 Letter of Intent Deadline: December 17, 2025 Application Deadline: January 20, 2026 Anticipated Selection Notification Date: February 2026 Anticipated Award Date: April 2026 Estimated Period of Performance: 2026-2029
Funding Opportunity Title	Infrastructure Investment and Jobs Act (IIJA) Rare Earth Elements Demonstration Facility	
Announcement Type	Initial Funding Opportunity	
Funding Opportunity Number	DE-FOA-0003587	
Funding Instrument	Cooperative Agreements	
Assistance Listing Number	81.253	
Funding Opportunity Description	The Office of Manufacturing and Energy Supply Chains (MESC) is issuing this NOFO to request applications for projects to design, construct, commission and operate a Rare Earth Element (REE) Demonstration Facility that demonstrates the separation of REEs from feedstock derived from acid mine drainage, mine waste, or other deleterious materials to rare earth oxides and refining into rare earth metals at a single site.	
Expected Total Available Funding	\$134 Million	
Program Goals & Objective(s)	<p>This program will advance the Administration’s plans to bolster the U.S. domestic supply chain for rare earth elements, which are critical minerals and materials (CMM), thereby reducing reliance on foreign sources, enhancing national security, and creating energy dominance.</p> <p>The objective of this program is to:</p> <ul style="list-style-type: none">• Fund the design, construction and operation of one (or more) cost effective, innovative, demonstration processing line(s) at a new or existing facility that will supply 150 to 1000 metric tons per year of rare earth elements (REEs) for domestic use.• The facility must process, separate, and refine rare earth oxides into rare earth metals from feedstock derived from acid mine drainage, mine waste or other deleterious material, including e-waste at a single site -- with a priority for heavy rare earth elements.	



Statutory Authority	P.L. 116-260, Div. Z, Energy Act of 2020, Title VII, Sec. 7001, as amended by P.L. 117-58, Infrastructure Investment and Jobs Act (IIJA), Div. D, Title II, Sec. 40205, codified at 42 U.S.C. 13344
Eligible Applicants	Please See Section II, Eligibility. <ul style="list-style-type: none">• II. Eligibility
Exchange URL and Helpdesk	Infrastructure Exchange: Funding Opportunities <ul style="list-style-type: none">• URL: https://infrastructure-exchange.energy.gov• Help Desk: InfrastructureExchangeSupport@hq.doe.gov

1. Funding Details

Single Topic Area

- Approximate total available funding: Up to \$134M
- Approximate number of awards: 1-2
- Approximate dollar amount of individual awards: \$67-\$134M
- Minimum cost share required: 50% of the total project costs
- Approximate award project period: Up to 36 months
- Anticipated length of budget periods: 9-18 months

2. Period of Performance

DOE anticipates making awards, each 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 Department of Energy (DOE), through its Office of Manufacturing and Energy Supply Chains (MESC) is issuing a Notice of Funding Opportunity (NOFO) for the design, construction, and operation of a Rare Earth Element (REE) Demonstration Facility. See 42 U.S.C. 13344.

The Trump administration, through E.O. 14154 "Unleashing American Energy," has directed DOE "to ensure that critical mineral projects, including the processing of critical minerals, receive consideration for Federal support, contingent on the availability of appropriated funds."¹ This program will advance the Administration's plans to bolster the U.S. domestic supply chain for rare earth elements, which are critical minerals and materials (CMM), thereby reducing reliance on foreign sources, enhancing national security, and creating energy dominance.

The key objective of the program is to:

- Fund the design, construction and operation of one (or more) cost effective, innovative, demonstration processing line(s) at a new or existing facility that will **supply 150 to 1000 metric tons per year of rare earth elements (REEs)** for domestic use.
- The facility must process, separate, and refine rare earth oxides into rare earth metals **from feedstock derived from acid mine drainage, mine waste or other deleterious material**, including e-waste at a single site -- with a priority for heavy rare earth elements.

¹ [Unleashing American Energy – The White House](#)



C. 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. Click on "Submit Entry to Teaming Partner List", 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. 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.

D. Related DOE Efforts

DOE Office of Energy Efficiency and Renewable Energy, Advanced Materials and Manufacturing Technologies Office (AMMTO) has released a Notice of Intent to Issue NOFO DE-FOA-0003589, "Critical Minerals and Materials Accelerator." The anticipated AMMTO NOFO will focus investments on American, industry-led partnerships to prototype and pilot innovative critical materials production technologies that are currently only proven at the bench scale to address challenges in high-impact areas. Link to NOI: <https://www.energy.gov/eere/ammto/critical-minerals-and-materials-accelerator-0>

DOE Office of Fossil Energy (FE) has released a Notice of Intent to Issue NOFO DE-FOA-0003583, "Infrastructure Investment and Jobs Act (IIJA) - Mines & Metals Capacity Expansion." The planned FE NOFO will focus investments on American industrial facilities that have the potential to produce valuable mineral byproducts from existing industrial processes. Industries such as mining and mineral processing, power generation, coal, oil and gas, specialty metals, and basic materials have the potential to address many of America's most severe mineral vulnerabilities. The Notice of Intent can be found here: <https://www.energy.gov/fecm/notice-intent-mines-metals-capacity-expansion-piloting-product-critical-minerals-and-materials>

E. Agency Contact Information

Office of Manufacturing and Energy Supply Chains
U.S. Department of Energy
1000 Independence Ave SW



Washington, D.C. 20585

For questions relating to this specific NOFO, please send emails to DE-FOA-0003587@netl.doe.gov.



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.

1. Restricted Eligibility

In accordance with 2 CFR 910.126, Competition, eligibility for this NOFO is restricted to be consistent with 42 U.S.C. 13344(c)(1) which states, "the Secretary shall fund, through an agreement with an academic partner, the design, construction and build-out of a facility." Therefore, eligible applicants will be restricted to entities partnering with an academic institution as follows:

- A domestic academic partner as the prime recipient (as a pass-through entity or participating materially in the project), with at least one for-profit sector entity as sub-recipient.
- An incorporated consortia as the prime recipient, that includes a domestic academic partner as a member of the consortia with material participation, and the domestic academic partner as a subrecipient to the award.
- An unincorporated consortia, where the prime recipient has a partnership agreement with a domestic academic partner outlining the roles and responsibilities of the project management and where the domestic academic partner is a subrecipient on the award.

2. Domestic Entities

The following types of domestic entities are eligible to participate as a subrecipient of this NOFO in accordance with the requirements of the Restricted Eligibility:

- Institutions of higher education (See [Title 20 U.S.C. § 1001](#) for the definition);
- For-profit organizations;
- Nonprofit organizations;
- 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. § 5304²

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

² "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.



United States; have majority domestic ownership and control; and have a physical place of business in the United States.

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 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.

4. 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.

5. Ineligible Participants

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

- 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 \(treas.gov\)](https://www.treas.gov/sanctions).
- 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 Letters of Intent and Applications Eligible for Review

An entity may submit more than one Letter of Intent and associated application to this NOFO provided that each describes a unique, scientifically distinct project concept. Applicants are requested to submit a non-binding Letter of Intent by the specified due date and time, but submissions are not mandatory to be eligible to submit an application.



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.

1. Cost Share Requirements

The applicant's cost share must be at least 50% of the total project costs³ for demonstration projects.⁴

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 cost share information sheet and sample cost share calculation in the [NOFO Part 2, Eligibility—Cost Sharing, Cost Share Calculation Examples](#).

2. 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.

The recipient and subrecipient(s) may not use the following sources to meet cost share obligations:

- Revenues or royalties from the prospective operation of an activity beyond the period of performance;
- Proceeds from the prospective sale of an asset of an activity;
- Federal funding or property (e.g., federal grants, federal loans, equipment owned by the federal government); or
- Expenditures that were reimbursed under a separate federal program.

D. FFRDC Eligibility Criteria

1. 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.

³Total project costs are the sum of the government share, including FFRDC costs if applicable, and the recipient share of project costs.

⁴ Energy Policy Act of 2005, Pub. L. 109-58, sec. 988. Also see 2 CFR 200.306 and 2 CFR 910.130 for additional cost sharing requirements.



Authorization for DOE FFRDCs

The cognizant Grants and Awards 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 recipient and FFRDC are responsible for entering into an appropriate subaward that will govern, among other things, the funding of the FFRDC portion of the work from the recipient under its DOE award. Such an agreement must be fully executed prior to the FFRDC starting work directly allocable to the FA award. The DOE funding office will provide funding for the DOE FFRDC or non-DOE FFRDC, participating as a sub awardee under the DOE financial assistance award to the recipient.

The applicant should prepare the budgets using rates appropriate for funding the FFRDCs through subawards. 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.

Responsibility

The recipient will be 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 the FFRDC.

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 as a subrecipient.



III. Program Description

A. Background and Context

The Office of Manufacturing and Energy Supply Chains (MESC) is issuing this Notice of Funding Opportunity (NOFO). Awards made under this NOFO will be funded with up to \$134 million authorized by Section 40205 of the Infrastructure Investment and Jobs Act, codified at 42 U.S.C. 13344.

MESC's core mission involves fortifying the nation's critical energy supply chains. These supply chains are the backbone of the economy, underpinning national security and ensuring the consistent availability of the materials, components, and systems needed to make, store, and use energy. Disruptions in these essential networks can lead to widespread economic instability, job losses, and shortages of vital products that impact daily life. MESC's efforts ensure a resilient and robust American energy infrastructure.

By stabilizing supply chains, MESC helps maintain competitive advantages for domestic manufacturers, which in turn supports job creation and economic growth. This focus extends beyond immediate economic concerns to encompass long-term strategic interests, guaranteeing that the U.S. has access to the materials and components necessary for both current production and future technological advancements. A secure supply chain directly translates into a more stable and prosperous society.

DOE focuses on providing affordable, reliable and secure mineral resources for the nation. DOE is emphasizing rare earth elements (REEs) because of their unique and irreplaceable properties, which are fundamental to a vast array of modern applications. The global supply chain for REEs has historically been concentrated in other regions, however DOE's efforts will enable a strong domestic rare earth element supply chain. Projects activated through this funding opportunity will enhance commercial viability of the use of deleterious and waste material to diversify sourcing, encourage domestic extraction and processing, and foster innovation. This effort will safeguard access to the technologies that power modern life and drive future progress.

MESC will fund through an agreement with an academic partner, the design, construction, and build-out of a facility to demonstrate the commercial feasibility of a full-scale integrated rare earth element extraction and separation facility and refinery through the use of feedstock derived from acid mine drainage, mine waste, or other deleterious material such as harmful materials resulting from mining or industrial operations like industrial waste or electronic waste streams.

B. Program Purpose

The primary purpose of this funding is to demonstrate the commercial viability of methods for domestically refining and recovering rare earth elements from sources such as mine tailings, deleterious material, and waste streams, including e-waste. By investing in these areas, MESC aims to strengthen America's own supply chain for REEs. The initiative supports DOE's mission to enhance economic and national security by unleashing economic growth, ensure our national security, and expand our nation's power supply.

Rare earth elements are essential to modern technology due to their unique properties. These properties make them critical components in a wide array of modern products, from consumer



electronics like smartphones and computers to advanced medical imaging equipment and defense systems. The U.S. has otherwise limited cost-effective natural resources and processing capabilities, requiring the import of these materials – primarily from the other countries. Domestic demand is estimated at ~25,000 tons per year for all REEs, and the U.S. is currently 100% dependent on imports for heavy rare earths (e.g. terbium and dysprosium) (U.S. Geological Survey, Department of the Interior, Mineral Commodity Summaries 2022 (January 31, 2022)). Given the strong domestic demand and dependency, DOE is especially interested in projects that focus on producing heavy REE.

Given the trade dynamics and current export control restrictions on REEs and products from other countries to U.S. manufacturers, it is imperative to increase our domestic supply of all REEs and exploit all possible domestic sources such as coal ash, e-waste, and deleterious material. Research over the last decade has shown that these nontraditional resources are technically viable. The demonstration project(s) from this NOFO will advance the state of the art, provide a meaningful production capacity of REEs, and demonstrate the viability of these processes.

C. Program Goals and Objectives

This NOFO seeks applications to address the IIJA requirement under 42 U.S.C. 13344(c) for a demonstration facility that produces REEs from domestic feedstock derived from acid mine drainage, mine waste, or other deleterious material. The production of heavy REEs is of particular interest.

Successful projects will:

- Use domestic upstream sources and supply domestic downstream customers to the greatest extent possible.
- Complete a Front-End Engineering Design (FEED) study, construction, commission, and operate the demonstration facility.
- Establish, preferably, mineral processing facilities that are scalable and modular that may be adaptable to different upstream sources and feedstock size and composition.
- Analyze the facilities' impact on cost, energy, water usage, and emissions related to the extraction, separation, and reduction to metal of REE relative to current commercial practices.
- Estimate overall facility capacity, in addition to individual product capacities for REE extraction, separation, and reduction to metal.
- Detail the proposed scale, timeline, and upstream feedstock and downstream supply markets for their proposed output minerals, materials, and metals. Use letters of support or commitment from feedstock or upstream suppliers and downstream customers where possible to show a complete picture of the role this project could have in a REE supply chain.
- Describe facility design and construction, including allocating for any facility retrofitting into existing facilities or buildings, and describing any existing equipment or processing operations that may be used in the demonstration.
- Describe environmental management and any impacts related to using the chosen upstream feedstock material.
- Detail descriptions of product purities, impurity profiles, and waste products in addition to any other applicable customer requirements.
- Perform an economic analysis of the proposed processes and any material qualification plans.
- Identify barriers such as: key technical challenges, such as impurities or cost limitations; scaling challenges such as process throughput, equipment, and current validation status; and barriers, such as equipment or financing.



- Demonstrate the market and financial viability of the proposed REE Demonstration Facility – perform a market analysis of the business model for the Prime Recipient and subrecipients that demonstrates robust commercial viability for the effort.
- Execute partner agreements and/or Letters of Support for all stages of the project including engineering design elements, feedstock, and offtake agreements.
- Meet the minimum 50% cost share requirement.
May consider the co-production or processing of other non-REE minerals, materials, or products at the same facility.

D. Expected Performance Goals

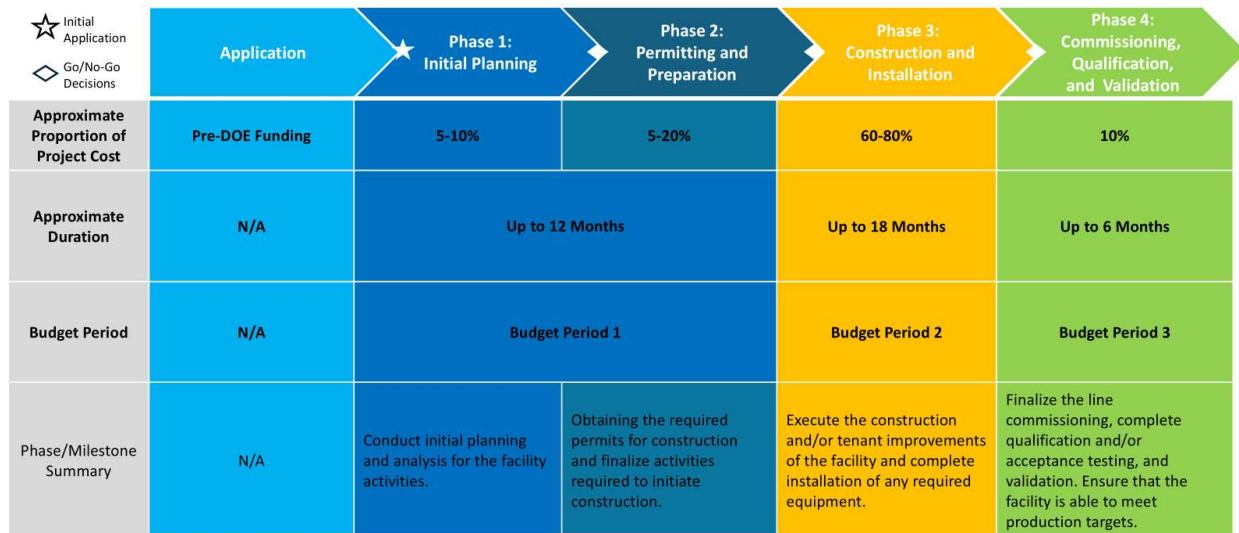
The projects selected from this NOFO will:

- Supply 150-1000 metric tons/year of REE from demonstration(s) activity while pioneering processes for REE separation from feedstock derived from acid mine drainage, mine waste, or other deleterious material that provides environmental benefits.
- Demonstrate the commercial feasibility of rare earth element extraction, separation, and refining into rare earth metals.
- Separate mixed rare earth oxides into pure oxides of each rare earth element and refine rare earth oxides into rare earth metals at a single site.

Awards selected under this NOFO will adhere to a four-phased structure for managing scope, schedule, deliverables, and budget. The figure below shows an example of the phase progression, major work activities, funding proportion, and timeline. These activities will also be further defined during award negotiations and subsequent negotiations between phases. DOE anticipates all awarded projects will be funded through Phase 4 pending successful Go/No-Go reviews, which will be designed to manage risk and will occur between and within phases.

Phases can be staggered for multiple line builds and intermediate scales within workplan, if needed.

While the phase figure and the narrative text below provide approximate timetables for each phase, these timetables are representative only. It is DOE's intention to work with Recipients to progress projects through the phased project implementation as prudently as possible. While phases are used to conceptually describe the progression of project development, awards will be managed in budget periods as defined in 2 CFR 200.1 "Budget period."



Phase 1 Initial Planning and Phase 2 Permitting and Preparation (Budget Period 1)

Budget Period 1 will constitute two Phases of activity with an intermediate go/no-go decision point in between to move forward into the second phase of BP1. Phase 1 and 2 activities should focus on completing specific details about the overall project plan and analysis to refine projections submitted as part of the proposal. Budget Period 1 will be a maximum of up to 12 months. It is at the discretion of the Applicant to detail the timeframe and activities of each phase. For example, Phase 1 to get to a final FEED and obtain financial commitments could be 9 months and Phase 2 to complete permitting actions could be 3 months with an appropriate go/no-go decision point between phases.

Phase 1 Initial Planning

At the end of Phase 1 it is expected that there is a completed Front End Engineering Design (FEED) study with final cost estimates completed for the remainder of the project, there are financial commitments for the full cost share for the project and sufficient offtake agreements in place to proceed to Phase 2 and beyond.

This phase will include finalization of the Project Management Plan and Risk Management Plan. This phase should also include a detailed strategy for obtaining all permits that will be required for both construction level and operations level project activities. Applicants should fully engage with the NEPA team of the DOE as the permitting plans are developed. Applicants should begin and make meaningful progress towards the necessary permitting and approval activities to initiate construction. Plans for any operational, validation, or acceptance testing should be refined.

Phase 2 Permitting and Preparation

The end of Phase two and Budget Period 1 will include a final Go/No Go decision point that will include all aspects of the project (permitting, long lead item specifications, etc.) indicating the Applicant is ready for construction, including final investment decision by the Applicant. Project teams should complete any required tasks associated with any federal, state, and local regulatory requirements to initiate construction including the NEPA review of the DOE. All procurement plans should be matured and



finalized during this phase. Long-lead procurement activities may begin in this Phase. Typical expectations for this phase would include ALL permits or authorizations for construction activities to be in place and any associated planning required prior to construction activities have been completed. Recipients are expected to reach a Final Investment Decision (FID) by the end of Budget Period 1 and should have final costs and schedule for the project ready to initiate construction.

Phase 3 – Construction and Installation (Budget Period 2)

In Phase 3 (Budget Period 2) activities will focus on construction and equipment installation. This phase and budget period shall be up to 18 months total and must include an intermediate go/no-go decision point aligning with an appropriate and significant critical path milestone such as: completion of the facility building shell, the installation of a major piece of equipment, or the installation and testing of the first of several production lines.

Recipients will conduct and complete any activities associated with facility construction and/or retrofitting required under the specific project. Budget Period 2 may vary significantly for each project, as each will entail differing degrees of construction and/or retrofitting scope.

Recipients will execute the plans developed in the previous phases and complete any revisions and updates as appropriate to reflect actual performance and progress. Engineering may be further refined during this phase, as appropriate. Operations protocols and controls should approach finalization.

Any outstanding permits required to begin operational activities should be obtained during this phase. Typical expectations for this phase completion would include construction activities completed, operations permit obtained, and equipment installed. The end of this Budget Period will be the completion of all installation and construction work.

Additionally, in this phase recipients will transition to the commissioning, qualification, and validation activities which may include individual pieces of equipment, or an initial production line commissioned, tested and validated leading into the final full plant commissioning, qualification and demonstration in Phase 4.

Phase 4 – Commissioning, Qualification and Demonstration (Budget Period 3)

In Phase 4 (Budget Period 3) recipients will complete commissioning, qualification, and validation activities. All installed production lines, equipment, and/or stations, should be commissioned, tested, and validated to ensure a transition into full production activities. Phase 4 (Budget Period 3) shall be up to 6 months.

During Phase 4, the recipient should ensure that the facility is able to operate as designed and is able to appropriately meet production targets as defined from application and through project planning and execution. All installed production lines, equipment, and/or stations as applicable, should be commissioned, tested, and validated to ensure a transition into operational activities including production and ramp-up.



During this Phase, the recipient should ensure that the facility is able to operate as designed and is able to appropriately meet production targets as defined from application and through project planning and execution for a defined representative operational period, with a target of ~30 days.

TRANSITION BETWEEN PHASES

Specific Go/No-Go criteria will be negotiated with each selected project for transitions between each Budget Period and at key intermediate points of budget phases.

This may include a requirement to submit a standardized set of data to provide quantitative and qualitative insight on metrics spanning the technological, environmental, economic, market, workforce, and other components relating to project activities and impact. DOE may also require the negotiation of additional Go/No-Go decision points within phases (i.e., phases may include one or more budget periods with Go/No-Go decision points at the end of each budget period). Applicants must propose quantitative Go/No-Go criteria for each budget period as defined in the Technical Volume section.

If DOE determines that an award is making insufficient progress, additional scrutiny and oversight by DOE or its representatives may be employed, and corrective measures negotiated. Awards may be discontinued at any of the Go/No-Go decision points if the Go/No-Go criteria, project, and/or program requirements are not met. If awards are proceeding on an accelerated schedule, it may be possible to move a Go/No-Go review earlier than originally planned and advance to the next phase if the review is successfully completed.

Specific project structure details for each recipient will be negotiated on a project-by-project basis to produce the best possible balance between project outcomes and DOE risk exposure. Examples of factors that may be considered as part of such negotiations include project and risk management processes, team capabilities, cost share amounts, financial contingencies, and engagement of independent monitors such as an Independent Engineers. DOE will require access to project performance and financial data necessary to track progress against a project baseline (or similar).

If funded through all phases, DOE expects that the projects selected under this NOFO will significantly advance technical and commercial viability. The phased approach is designed to guide Recipients through the project development process incrementally. Each subsequent phase is structured to ensure that each award meets a standard level of maturity, employs a robust execution approach, and that technical and non-technical project risks are adequately and appropriately managed throughout the award.

E. Topic Areas

This NOFO contains a single Topic Area for the design and build out of a Rare Earth Element demonstration facility, as described in Sections B, C and D.

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 [Background and Context](#) above and the [Topic Areas](#) section above.



- Applications for proposed technologies that are not based on sound scientific principles (e.g., violates the laws of thermodynamics).
- Applications from ineligible entities.
- Applications that are based on research, development, or pilot-scale (alone) activities.
- Applications that do not adhere to the feedstock requirements for the statutes.

G. Statement of Substantial Involvement

Cooperative Agreements

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.

Other Transactions Authority

DOE may use DOE's other transactions authority as codified at 42 USC §7256(a) and (g) to enter into an other transaction agreement with Recipients on a case-by-case basis. DOE may negotiate an other transaction agreement when DOE determines that the use of a standard cooperative agreement, grant, or contract is not feasible or appropriate for a project. For information on other transaction agreements, see <https://www.energy.gov/management/other-transaction-authority>.

H. Statutory Authority

The authorizing statutes are the Infrastructure Investment and Jobs Act of 2021 § 40205, 42 U.S.C. § 13344, and the DOE Organization Act § 646, 42 U.S.C. § 7256.

Cooperative agreements made under this announcement are subject to the OMB Guidance for Federal Financial Assistance (e.g., 2 CFR Part 200) and DOE's Financial Assistance Regulations, 2 CFR Part 910.



IV. Application Content and Form

This section includes application information specific to this NOFO. 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. Use and Disclosure of Application Information

Applicants should not include trade secrets or business-sensitive, proprietary, or otherwise confidential information in their application unless such information is necessary to convey an understanding of the proposed project or to comply with a requirement in the NOFO. Applicants are advised not to include any critically sensitive proprietary detail.

If an application includes trade secrets or business-sensitive, proprietary, or otherwise confidential information, it is furnished to the federal government in confidence with the understanding that the information shall be used or disclosed only for evaluation purposes. For example, DOE may disclose such information to determine whether to select the project for funding under this NOFO or other government programs, or as otherwise authorized by law. This restriction does not limit the federal government's right to use the information if it is obtained from another source.

Applications and other submissions containing trade secrets or business-sensitive, proprietary, or otherwise confidential information must 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 federal government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose as authorized by law.

Notice of Restriction on Disclosure and Use of Information:

Pages [list applicable pages] of this document may contain trade secrets or business-sensitive, proprietary, or otherwise confidential information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes with the restriction that the information be retained in confidence and not be further disclosed, or in accordance with a financial assistance 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. [End of Notice]

In addition, (1) the header and footer of every page that contains trade secrets or business-sensitive, proprietary, or otherwise confidential information must be marked as follows: "CONTAINS TRADE SECRETS, BUSINESS-SENSITIVE, PROPRIETARY, OR OTHERWISE CONFIDENTIAL INFORMATION EXEMPT FROM PUBLIC DISCLOSURE," and (2) every line or paragraph containing such information must be clearly marked with double brackets or highlighting.

All application information is subject to public release under FOIA except information that qualifies under a FOIA exemption. One of the exemptions is trade secrets or commercial or financial information that is confidential or privileged. The above markings are essential to assist DOE in identifying such information that is exempt from public disclosure. However, the existence of the above or other protective markings is not dispositive on whether information is exempt under FOIA, only DOE's designated FOIA Officer may determine if the information qualifies for a FOIA exemption. See 10 C.F.R. Part 1004 for more information on how DOE processes FOIA requests.



Notwithstanding the above, for compliance with IMPLEMENTATION OF PRESIDENTIAL MEMORANDUM SIMPLIFYING THE FUNDING OF ENERGY INFRASTRUCTURE AND CRITICAL MINERAL AND MATERIAL PROJECTS, the Department of Energy may share and use within the Government any application information provided by or on behalf of the applicant. Accordingly, in accordance with applicable law and notwithstanding any other provisions herein, by submitting an application or agreeing to a financial assistance arrangement with the Department of Energy under this NOFO, the applicant is providing consent for any properly marked trade secret, 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 of the Presidential Memorandum on Simplifying the Funding of Energy Infrastructure and Critical Mineral and Material Project.

B. Summary

The application process includes multiple submission phases: Letter of Intent and Application.

Application Submission Phase	Eligibility for Submission
Letter of Intent	Requested Letter of Intent by the Date on the Cover Sheet. This letter is non-binding and not mandatory. If a letter is not submitted, then an application will still be accepted for review if it meets eligibility criteria.
Application	Must be submitted by the specified due date and time to be eligible for comprehensive merit review.

C. Letter of Intent

Applicants are requested to submit a non-binding Letter of Intent by the specified due date and time, but submissions are not mandatory to be eligible to submit an application. Letters of Intent will be used by DOE to plan for the merit review process. The submission should not contain any proprietary or sensitive business information. Letters of Intent will not be used for down-selection purposes, and do not commit an applicant to apply. Applicants are not bound to the statements made in the letter of intent; it is reasonable for project partners, locations, or other factors to change during the application development process. DOE will not provide feedback on the Letters of Intent.

Each applicant should provide the following information as part of the Letter of Intent:

Letter of Intent Content Requirements in eXCHANGE	
Project Title	The project title should be consistently used across other application documents.
Lead Organization	Complete legal name of the lead organization.
Percentage Effort Performed by the Lead Organization	Provide the percentage effort to be performed by the lead organization in terms of overall budget percentage.



Organization Type	Academic; Federal Government; Federally Funded Research and Development (FFRDC); Government Owned and Operated (GOGO); Indian/Native American Tribal Government; Individual; Large Business; Non-Profit; Small Business; State and/or Local Government
Organization Location	Business location of the lead organization City, State, and Zip Code.
Recipient Technical Point of Contact (POC)	Complete legal name and title for the Principal Investigator (PI) or Lead Project Manager (LPM).
Senior/Key Personnel	Provide complete legal name/title of all Recipient Senior/Key Personnel
Subrecipients/Key Partners	Provide complete legal names of all Subrecipients and Key Partners (if known)
Subrecipient & Key Partner Senior/Key Personnel	Provide complete legal name/title of all Subrecipient & Key Partner Senior/Key Personnel
Project Location	Anticipated location of the project City, State, and Zip Code.
Project Description	Description should not exceed 200 words and should provide a truncated explanation of the proposed project.

D. 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.

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.

In addition, DOE designates technical staff (e.g., postdoctoral fellows/researchers and graduate students) as covered individuals for the purpose of this funding opportunity.



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

If selected, throughout the life of the award, the recipient has an ongoing responsibility to submit: 1) current and pending support disclosure statements and resumes/biosketches for any new covered individuals, and 2) updated disclosures if there are changes to the current and pending support or resume/biosketch previously submitted to DOE.

2. Summary of Application Requirements

Component	File Format	Page Limit	File Name (Please use this designation for submitted files)
Application for Federal Assistance (SF-424)	PDF	n/a	ControlNumber_LeadOrganization_424
Technical Volume	PDF	30 pages	ControlNumber_LeadOrganization_TechnicalVolume
Letters of Commitment	PDF	1 page each	ControlNumber_LeadOrganization_LOCs
Impacted Indian Tribes Documentation	PDF	n/a	ControlNumber_LeadOrganization_ImpactedTribes
Statement of Project Objectives	MS Word	8 pages	ControlNumber_LeadOrganization_SOPO
Budget Information Non-Construction Programs (SF-424A)	MS Excel	n/a	ControlNumber_LeadOrganization_SF-424A
Budget Justification Workbook	MS Excel	n/a	ControlNumber_LeadOrganization_Budget_Justification
Subrecipient Budget Justification	MS Excel	n/a	ControlNumber_LeadOrganization_Subrecipient_Budget_Justification
Work Proposal for FFRDC, (see DOE O 412.1A)	PDF	n/a	ControlNumber_LeadOrganization_WP
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
Resumes (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
Location(s) of Work	MS Excel	n/a	ControlNumber_LeadOrganization_LOW



Environmental Questionnaire	PDF	n/a	ControlNumber_LeadOrganization_EQ
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 page	ControlNumber_LeadOrganization_Summary
Summary Slide	MS Power Point	n/a	ControlNumber_LeadOrganization_Slide
40205 Application Data Sheet and Workbook	MS Excel	n/a	BusinessSensitive_ControlNumber_LeadOrganization_Workbook
Financial Model	MS Excel	n/a	BusinessSensitive_ControlNumber_LeadOrganization_Financial Model
Financing Documentation	PDF	n/a	BusinessSensitive_ControlNumber_LeadOrganization_Financing Documentation

3. 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, financial sources, and other resources 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 30 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 [Technical Review Criteria](#)) when preparing the Technical Volume.

Technical Volume Content Requirements Overview	
Section	Approximate Percent Content of the Technical Volume
Cover Page	N/A
1. Project Overview	10%
2. Technology Description, Merit, and Innovation	25%
3. Supply Chain Impact and Viability	15%
4. Commercial Plan and Financial Plan	20%
5. Workplan, Management Plan and Partners	15%
6. Technical Qualifications and Resources	10%
7. Risk Analysis and Mitigation	5%



Cover Page:

The cover page must include all of the following:

- The project title
- Technical and business POCs
- The project team, including applicant 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

Section 1 - Project Overview:

The project overview should include the information set forth below, as well as clear, unambiguous, and quantified data and measures to support any included analysis and projected impacts. Information provided in the Project Overview should be consistent with and supported by other sections of the application.

- **Scope and Objectives:** The overall scope and objectives of the proposed project.
- **Project Location:** The project location, including the address of the project location. In the event a project site is not yet identified, the schedule for securing a project site must be provided.
- **Production Capacity:** The product(s) to be produced, the targeted annual manufacturing capacity and information or data to support the targeted annual manufacturing capacity.
- **Market Overview:** The market segment(s) the project will fulfill, the stability of that market segment(s), the growth potential of that market segment(s) and the competitiveness of the project in the market segment(s).
- **Project Impacts:** The impact that the proposed project will have in bolstering the relevant domestic supply chain, including an assessment of analysis of how the project will impact or improve the current baseline by increasing domestic capacity to meet current or projected demand and/or by onshoring capacity to enhance national security, resilience, and economic competitiveness.
- **Experience:** The applicant should discuss previous manufacturing experience, the background of their organization, including the history, successes, and current technical track record relevant to the technical topic being addressed in the application.
- **Impact of DOE Funds:** 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.

Section 2 - Technology Description, Merit, and Innovation:

The Technology Description, Merit, and Innovation section should contain the following information:

- **Relevance and Outcomes:** The applicant should provide a detailed description of the technology to be produced and the unique characteristics that drive the value proposition of the product. This section should describe key innovations that drive production efficiency and innovation such as relevant patents, processes, flow diagrams, etc. and the relevance of the proposed project to the goals and objectives of the NOFO, including the potential to meet specific DOE technical targets, IJJA policy priorities, or other relevant performance targets. The applicant should clearly specify the expected outcomes of the project.



- **Feasibility:** Within the feasibility discussion, the applicant should demonstrate the following:
 - The technical feasibility of the proposed facility, technology, and the capability of achieving the anticipated performance targets.
 - A description of any related previous work done and prior results.
 - This section should address the access of the project to necessary infrastructure (e.g., transportation, water, electricity, transmission), including any use of existing infrastructure.
 - This section should address the access of the project to skilled workers, ideally in the surrounding community, for both construction and ongoing operations of the facility.
 - Include any developed maps, diagrams, and projections that support the understanding of feasibility of the proposed facility.
- **Innovation and Impacts:** The applicant should describe any specific measures being taken by the project to improve or enhance the performance, quality, cost, and energy efficiency of production processes and facility energy use. The applicant should describe the level of innovation of the process compared to the state-of-the-art and how this can result in better market positioning for facility success.
- **Technology Impact:** The applicant should describe how the end item technology, once deployed, will positively impact the domestic supply chain for REE. The applicant should specify the tonnes and/or concentrations of mixed rare earth oxides, heavy and light REEs, and metals obtained from the proposed effort.

Section 3 - Supply Chain Impact and Viability:

- **Supply Chain Impacts of the Project:** The applicant should supply any existing offtake agreements and describe how the project will address domestic supply chain issues, such as addressing current or projected project gaps or insufficiencies in the domestic supply chain, including ratio of units to be produced relative to federal funding requested.
- **Market Analysis:** Applicants are required to succinctly describe their projected target market for manufactured product(s). The plan should include an analysis of the current and projected target market for manufactured product(s), including the sufficiency of the existing target market(s).

Relevant data-backed deliverables include:

- Assessment of the total and segment addressable market(s), including relevant projections and underlying market trends
- Competitive landscape assessment, covering current and potential competitors
- Market pricing mechanics, production price targets, and customer procurement dynamics (e.g., cost considerations, typical offtake terms, de-risked sourcing premiums, etc.)

Section 4 - Commercial Plan and Financial Plan:

The Project Financial Plan and Business should address the items listed below, as well as any other pertinent and related information. Information provided in here should be consistent with and supported by other sections of the application.

Project Level Financial Plan



The financial plan should include the proposed budget and spend plan, covering both DOE funding and non-federal cost share. It may reference the Budget Justification Workbook. A separate monthly spend plan should be submitted to show the project expenditures for budget periods 1 and 2.

The financial plan should include: (i) the amount of cost share proposed in proportion to the Federal award requested; (ii) the proposed cost share and initial capital stack for the project at hand, including the availability, credibility, and risk/terms of non-federal cost share sources; (iii) the plan and schedule to achieve long-term financial viability, beyond federal funding; and (iv) the ability to provide contingency funding to meet unexpected project cost overruns, including the source of such funding. If known, plans for any follow-on investments for further growth or expansion after the award performance period, with supporting evidence (LOIs, etc.)

- **Feedstock and Supply Arrangements:** The applicant should provide analysis of the relevant markets for and plans to ensure an adequate supply of feedstock and essential supplies at what price needed for successful operation of the project. This analysis should include the strategy to leverage existing U.S. supply chains and support growth of domestic capabilities in keeping with U.S. job creation goals. If available, the application should provide letters of commitment or term sheets for prospective or current feedstocks and other suppliers. The business plan must include the operational cost estimates for key raw materials and describe the sensitivity of the price for input materials to market fluctuations and any other potential market risks to supply.
- **Offtake Arrangements:** Offtake contracts, term sheets or letters of commitment or term sheets from binding or prospective customers and/or offtakers should be provided, if available. If firm commitments are not available, please describe the maturity of these business agreements, timeline and key decisions necessary to secure them. If the offtake is to a next step in a supply chain describe the status and maturity of that part of the market.

These should be submitted as a separate attachment in Infrastructure eXCHANGE (see [NOFO Part 2, Application Content and Form — Letters of Commitment](#) for more information). The business plan should indicate the percentage of annual material processing capacity that is covered by binding offtake arrangements.

All proposed project applicants must establish the potential to be cost competitive with commercially available state-of-the-art technology, or a justification must be provided to show there would be a broad market uptake at a premium cost.

- **Total Project Cost:** Applications should include a current Total Project Cost (TPC) estimate that covers the entirety of the project, including construction, capital, labor, and other cost categories as appropriate for individual project plans. Cost estimates should meet industry standards for the size and complexity of the proposed project and should explain what assumptions were used and why they were deemed appropriate. An overview of the project's current TPC estimate should be included in the Financial Plan. Supporting itemized data can be provided as part of the "Budget Justification Workbook." During award negotiations, DOE may conduct a third-party review of the project TPC. The rationale for all estimates and the approach for arriving at the estimates must be discussed. Additionally, the level of confidence in the estimate should be provided.
- **Non-Federal Support:** The plan should identify other non-federal governmental (including state or local) incentives or other assistance on which the proposed project relies to support the financing, construction, and operation of the project. It should indicate the terms of such support which could result in termination or reduction of anticipated/actual non-Federal



support, and whether any such incentives or assistance are subject to withdrawal and the circumstances under which a withdrawal could occur.

Commercial Plan

- **Ownership Structure:** Description may be found in the table on [NOFO Part 2, Funding Restrictions](#).
- **Market Penetration Plan:** The applicant should describe the intended market approach for their facility to meet demand and compete under current market conditions, including with respect to average selling prices, strength of current and potential competitors, and forward-looking market trend and the market entry strategy (e.g. product differentiation, barriers to entry, intellectual property rights, first mover advantage, etc.); and the plan for marketing the product(s).
Relevant data backed deliverables include:
 - Assessment of price-competitiveness, including relativity to average selling prices
 - Competitive landscape assessment, covering current and potential competitors
 - Customer segmentation analysis and the associated strategy for marketing the product(s) to the relevant segments
- **Growth Plan:** The plan should describe the strength of the project's economic viability, sustainability, and potential growth beyond DOE funding, including the ability to achieve follow-on investments beyond the award performance period. Applicants are encouraged to submit a description (potentially including letter(s) of commitment) of a supply agreements and off-take agreement(s) with state, local, and/or private companies/organizations (contractors, utilities, retail, and/or otherwise).

Section 5 - Workplan, Management Plan and Partners:

The workplan should include a summary of the Project Objectives, Technical Scope, Work Breakdown Structure (WBS), Milestones, Go/No-Go decision points, and Project Schedule. A detailed Statement of Project Objectives (SOPO) is separately requested. The Workplan should contain the following information:

- **Site Selection:** If the applicant is building a new facility, the plan should include:
 - The rationale for selection of the project site;
 - Evidence of control over the site or the plan to establish control over the site such as a letter of intent, lease agreement, or contract;
 - Specific information about how the project will leverage existing facilities and regional assets, including regional economic development plans, infrastructure, workforce, and workforce training assets, to foster commercial viability, sustainability, and future growth of the project; and
 - Overview of equipment needs and required specifications for the site; sourcing plan for equipment and land, with supporting documentation, e.g. equipment supply agreement/LOI, land purchase/lease records.
- **Engineering, Procurement, Construction, and Operations:** Applications should include initial versions of Engineering, Procurement, Construction and Operations (EPC&O) project documents if available. The EPC&O project documents should provide detailed technical data and/or information to show how the targeted annual manufacturing capacity of the proposed project could be ramped and delivered. Describe the current status of the engineering and design work (FEL reference) at the time of application.
- **Key Contracts, Permits, and Agreements:** The Workplan should provide a top-level description, schedule, and status, of critical path contracts and agreements relevant to the project,



encompassing permits, best estimate of National Environmental Policy Act (NEPA) requirements and timeline, design, engineering, technology licensing, financing, construction, startup, commissioning, shakedown, operation, maintenance, and external plans or dependencies that could negatively impact the success of the proposed project. If any known part of the project or critical supply source is pending permitting, please flag and describe the engagement to date.

- **Key Equipment Cost and Supply Arrangements:** The Financial Plan must highlight key equipment with long lead times and provide cost estimates for these with a description of any market sensitivities. Please describe any intellectual property arrangements for the technologies to be sourced (e.g. any licensing agreements and fees required).
- **Use of Natural Resources:** The applicant should identify all potential short – or long-term constraints or sensitivities the project will have related to the access of the community to natural resources (e.g., water) and Tribal cultural resources. As applicable, describe the environmental risk mitigation plan and resource strategy.
- **Work Breakdown Structure:** The applicant should provide a schedule for the entire project, including a work breakdown structure (WBS) with primary task (level 1) and subtask (level 2) durations, descriptions, milestones, and Go/No-Go decision points in alignment with the SOPO. 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). Task descriptions should be well defined and provide detail around roles and responsibilities for any members of the project team, including project partners (if applicable). The WBS should include detailed plans for the phased approach outlined in Section K, Performance Goals. The WBS should also detail the length of each phase and show intermediate milestones leading to the Go/No-Go decision point.
- **Integrated Project Schedule:** The applicant should provide detailed *legible* integrated project schedule (IPS) for facility construction/modification (as applicable) and include operations and production to be conducted prior to project completion **as an attachment**. The initial IPS should include all major project activities and milestones (consistent with the overall Workplan), including engineering, design, procurement and construction. This IPS will be revised, expanded, and updated in future project activities. By the end of award negotiation, it is expected that the IPS will be execution ready and reflect comprehensive schedule risk and uncertainty analyses.
 - During each budget period, projects will report actual progress against their execution schedule or schedules as part of regular project management reporting requirements.
- **Workforce:** The applicant should provide a description of a workforce plan, stating how the workforce will be obtained for project execution and eventual operations.
- **Project Management:** The applicant should discuss the team’s proposed management plan, including the following:
 - The technical and management aspects of the management plan, including systems and practices, such as financial and project management practices, it is expected that the project will be managed using professional software, use of earned value management techniques and perform a risk analysis on the cost and schedule using approaches like Monte Carlo simulation;
 - A description of how project changes will be handled; and
 - The approach to Quality Assurance/Control.

Section 6 - Technical Qualifications and Resources:

The Technical Qualifications and Resources should contain the following information:



- Prior experience in performing tasks of similar risk and complexity;
- A description of the project team's unique qualifications and expertise, including those of key subrecipients;
- A description of the project team's existing equipment and facilities, or equipment 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 equipment or facilities requested as part of the project; and
- A description of the technical services to be provided by DOE FFRDCs, if applicable.

Partner Arrangements: For multi-organizational projects, describe succinctly:

- The roles and the work to be performed by the project manager and Senior/Key Personnel at the prime and subrecipient levels;
- Business agreements between the applicant and subrecipient(s);
- How the various efforts will be integrated and managed; and
- Process for making decisions on technical direction, publication arrangements, intellectual property issues, and communication plans.

Section 7 - Risk Analysis and Mitigation:

DOE expects award recipients to understand and actively manage risks. The applicant should provide a comprehensive Risk Management Plan (RMP) that is accompanied by a corresponding risk register that can be used for ongoing risk management.

The RMP should describe commercial, technical, construction, schedule, regulatory, permitting, safety, scale-up, infrastructure, financial, management, organizational, and market-related risks and mitigation plans. Of particular interest is the risks related to the facility operation including workforce training, safety measures to prevent exposures to harmful materials, fire safety, and adherence to safe workplace best practices.

Each identified risk in the RMP should be clearly described, including its probability of realization, potential impacts, and proposed mitigations. As appropriate, identified risks should be incorporated into other project documentation, such as execution schedules, cost estimate maturity, and contingency.

The risk management plan and risk register will be revised and updated as needed throughout the project life cycle. At a minimum, they will be reviewed and assessed for accuracy and adequacy as part of each budget period. Where and when appropriate, quantitative risk analyses may be required and subsequently incorporated into relevant risk management plans and contingency evaluations and will be used to inform negotiations with DOE.

Save the Technical Volume as a PDF using the following naming convention for the title:
"ControlNumber_LeadOrganization_TechnicalVolume"

4. Resumes for Research and Development (R&D) NOFOs

A resume provides information reviewers can use to evaluate an individual's skills, experience, and potential for leadership within the scientific community. Applicants must submit a resume or biographical sketch (see description below the table) for each Principal Investigator or Lead Project Manager and all covered individuals as defined in the *NOFO Part 1, Application Content and Form—Application Content Requirements, Covered Individual Definition, Designation and Responsibility*.



Applicants must screen resumes to ensure that they do not contain Personally Identifiable Information (PII) such as personal addresses, personal landline/cell phone numbers, and personal emails.

Resumes must include the following information, at a minimum:

Resume Requirements (Research & Development Activities)	
Contact Information	Phone, email, and address
Education & Training	Provide name of institution, major/area, degree, and year for undergraduate, graduate, and postdoctoral training
Research & Professional Experience	Beginning with the current position, list professional/academic positions in chronological order with a brief description. List all current academic, professional, or institutional appointments, foreign or domestic, at the applicant institution or elsewhere, whether remuneration is received, and, whether full-time, part-time, or voluntary
Awards & Honors	List any notable awards and honors received
Publications	List of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address if available electronically. Patents, copyrights, and software systems developed may be provided in addition to or substituted for publications. An abbreviated style such as the Physical Review Letters (PRL) convention for citations (list only the first author) may be used for publications with more than 10 authors
Synergistic Activities	List up to five professional and scholarly activities related to the proposed effort
Additional Criteria	There should be no lapses in time over the past 10 years or since age 18, whichever period is shorter.

As an alternative to a resume, it is acceptable to use the biographical sketch format approved by the National Science Foundation (NSF). The biographical sketch format may be generated by the Science Experts Network Curriculum Vita (SciENCv), a cooperative venture maintained at [SciENCv: Science Experts Network Curriculum Vitae \(nih.gov\)](https://www.sciencenetwork.org/sciencv) also available at [Common Form for Biographical Sketch \(nsf.gov\)](https://www.nsf.gov/pubs/2011/pub11101.pdf). The use of a format required by another agency is intended to reduce the administrative burden to researchers by promoting the use of common formats.

5. Current and Pending (Other) Support

Current and pending support is intended to allow the identification of potential duplication, overcommitment, potential conflicts of interest or commitment, and all other sources of support. As part of the application, the Principal Investigator or Lead Project Manager and all covered individuals as defined in the *NOFO Part 1, Application Content Requirements--Covered Individual Definition, Designation, and Responsibility* at the applicant and subrecipient level must comply with current and



pending support requirements. Consistent with the chart below, the current and pending support disclosures and biosketch/resumes 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 in current and pending support.

Information Required for Each Activity	
Sponsor of the Activity	The sponsor of the activity or the source of funding. Identify the entity for each proposal and/or active project that is providing the support. Include all Federal, State, Tribal, territorial, local, foreign, public or private foundations, non-profit organizations, industrial or other commercial organizations, or internal funds allocated toward specific projects.
Award Number	The federal award number or any other identifying number.
Title	The title of the award or activity. If the title of the award or activity is not descriptive, add a brief description of the research being performed that would identify any overlaps or synergies with the proposed research
Total Cost or Value	The total cost or value of the award or activity, including direct and indirect costs and cost share. For pending proposals, provide the total amount of requested funding. For in-kind contributions, enter the US dollar value of the in-kind contribution with an estimated value of \$5000 or more. If the dollar value is not readily ascertainable, a reasonable estimate should be provided. If the support is in a foreign country's currency, convert to US dollars at time of submission rounded to the nearest dollar.
Primary Place of Performance	Identify the primary location where the proposal and/or active project is being executed. Enter the City, State/Province, and Country where the organization is located. If the State/Province is not applicable, state N/A.
Project Period	The "Start Date" through "End Date".
Person-months	The person-months of effort per year dedicated to the award or activity. Enter how much time the individual anticipates is necessary to complete the scope of work on the proposal and/or active project. Enter the number of person-months (even if unsalaried) for the current budget period and enter the proposed person-months for each subsequent budget period. If the time commitment is not readily ascertainable, a reasonable estimate should be provided.
Overall Objectives	Provide a brief statement of the overall objectives of the proposal/active project.
Statement of Potential Overlap	Enter a description of the potential overlap with any pending proposal or active foreign or domestic project and this proposal in terms of scope, budget, or person-months planned or devoted to the project by the individual. If there is no potential overlap, state "none".



Digital Persistent Identifier (e.g., ORCID iD)	For R&D NOFOs only, providing an ORCID iD is required.
Certification Statement	<p>All covered individuals must provide a separate disclosure statement listing the required information above regarding current and pending support. Each individual must sign and date their respective certification statement:</p> <p><i>I, [Full Name and Title], understand that I have been designated as a covered individual by the Federal funding agency.</i></p> <p><i>I certify to the best of my knowledge and belief that the information contained in this Current and Pending Support Disclosure Statement is true, complete, and accurate. I understand that any false, fictitious, or fraudulent information, misrepresentations, half-truths, or omissions of any material fact, may subject me to criminal, civil, or administrative penalties for fraud, false statements, false claims, or otherwise. (18 U.S.C. §§ 1001 and 287, and 31 U.S.C. §§ 3729-3733 and 3801-3812). I further understand and agree that (1) the statements and representations made herein are material to DOE's funding decision, and (2) I have a responsibility to update the disclosures during the period of performance of the award should circumstances change which impact the responses provided above.</i></p> <p><i>I also certify that, at the time of submission, I am not a party in a malign foreign talent recruitment program. I further understand should I take action to involve myself with a Malign Foreign Talent Recruitment Program during the period of performance of the award, I must notify the recipient's Authorized Agent immediately, but no later than five business days of taking such action and immediately recuse myself from all DOE awards.</i></p> <p>The following certification is required for R&D projects:</p> <p><i>I further certify that within the past 12 months I have completed research security training meeting the requirements in SEC. 10634(b) of 42 USC 19234.</i></p>
Foreign Government Sponsorship	Details of any obligations, contractual or otherwise, to any program, entity, or organization sponsored by a foreign government must be provided on request to either the applicant institution or DOE. Supporting documents of any identified source of support must be provided to DOE on request, including certified translations of any document.



The information may be provided in the [Common Form for Current and Pending \(Other\) Support](#). Regardless of the format used, the individual must include a signature, date, and a certification statement using the language included in the table above.

Current and Pending Support Disclosures must be submitted for all covered individuals, include the exact certification statement provided above, and must be signed and dated to be considered.

Definitions:

Current and pending support –

- A) All resources made available, or expected to be made available, to an individual in support of the individual's RD&D efforts, regardless of
 - i. whether the source is foreign or domestic;
 - ii. whether the resource is made available through the entity applying for an award or directly to the individual; or
 - iii. whether the resource has monetary value; and
- B) includes in-kind contributions requiring a commitment of time and directly supporting the individual's RD&D efforts, such as the provision of office or laboratory space, equipment, supplies, employees, or students.

This term has the same meaning as the term "Other Support" as applied to researchers in the Presidential Memorandum on United States Government-Supported Research and Development National Security Policy-33 (NSPM-33): For researchers, Other Support includes all resources made available to a researcher in support of and/or related to all of their professional RD&D efforts, including resources provided directly to the individual or through the organization, and regardless of whether they have monetary value (e.g., even if the support received is only in-kind, such as office/laboratory space, equipment, supplies, or employees). This includes resource and/or financial support from all foreign and domestic entities, including but not limited to gifts provided with terms or conditions, financial support for laboratory personnel, and participation of student and visiting researchers supported by other sources of funding.

Malign Foreign Talent Recruitment Program as defined in P.L. 117-167, Section 10638(4):

- A) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual—
 - i. engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a United States entity or developed with a federal research and development award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;



- ii. being required to recruit trainees or researchers to enroll in such program, position, or activity;
- iii. establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a federal research and development award;
- iv. being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;
- v. through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a federal research and development award;
- vi. being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
- vii. being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the federal research and development award;
- viii. being required to not disclose to the federal research agency or employing institution the participation of such individual in such program, position, or activity; or
- ix. having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the federal research and development award; and

(B) a program that is sponsored by—

- i. a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
- ii. an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232); or
- iii. a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; 1 Public Law 115–232).

6. 40205 Application Data Sheet and Workbook

The 40205 Application Data Sheet and Workbook acts as a summarizing document for review to understand the projects focused products, the planned supply chain and offtakes for the products, and the financial plan for the execution of the project and operation of the facility post DOE award. All applications are required to complete the appropriate sections of the 40205 Application Data Sheet and Workbook.

Applicants must complete the 40205 Application Data Sheet and Workbook, which is available on Infrastructure eXCHANGE at <https://infrastructure-exchange.energy.gov/> and can be found under the respective NOFO # and Section titled “APPLICATION FORMS AND TEMPLATES.”

Save the 40205 Application Data Sheet and Workbook in a single Microsoft Excel filing using the following naming convention for the title: “ControlNumber_LeadOrganization_Workbook”



7. Financial Model

Applicants must submit a standard, working 3- Statement Financial Model (Income Statement, Balance Sheet, and Cash Flow Statement) in support of the entity's ability to support the project construction. The description of financial health should include: revenue assumptions, working capital assumptions, historical financials, income statement 10+ years into the future after construction is complete, scenario and sensitivity analysis based on key business and project risks, supporting schedules for debt, working capital, capex etc. Hard coding should only be for assumptions and, in such cases, provide detailed back up to the assumption. Functionality must include the ability for DOE to test the assumptions, etc.

Save the Financial Model in a single Microsoft Excel filing using the following naming convention for the title: "ControlNumber_LeadOrganization_Financial Model".

8. Financing Documentation

Applicants must submit the following:

- 1) The prime applicant, if publicly traded, must submit the latest public Securities and Exchange Commission (SEC) filing documentation.
- 2) The prime applicant, if a private entity, must submit the 2024, or most recent if 2024 is unavailable, financial annual report and auditor letter.
- 3) All applicants must submit, if applicable, any pitchbooks or similar documents used in the last 12 months for capital raising efforts.

Save the Financing Documentation in a single PDF using the following naming convention for the title: "ControlNumber_LeadOrganization_Financing Documentation".

E. 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
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
Davis-Bacon Act Requirements	NOFO Part 2	Applicable to awards made under this NOFO



Build America Buy America Requirements for Infrastructure Projects	NOFO Part 1	Applicable to awards made under this NOFO
Entities Submitting to both MESC and LPO Programs	NOFO Part 1	Applicable to awards made under this NOFO

1. Build America Buy America Requirements 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 [DOE's Standard Terms and Conditions](#) and [2 CFR Part 184](#) to determine whether the Buy America Preference applies and if they should consider the application of the Buy America Preference in the proposed project's budget and/or schedule. (Note that the Buy America Preference does not apply to prime recipients that are For-Profit Entities.)

2. Entities Submitting to both MESC and LPO Programs

Applicants to this NOFO may choose to simultaneously pursue debt financing from the Loan Programs Office (LPO) under its Advanced Technology Vehicles Manufacturing Program (ATVM).

Applicants pursuing both funding options for the same facility or as part of the same overall project should indicate they plan to do so in their application. Applicants should also provide a detailed explanation of sources and uses of funds, identify the project scope for which they are pursuing LPO financing, explain their commercial strategy for project implementation, and describe any existing commercial agreements or other project elements demonstrating ATVM eligibility. Interested applicants may reach out to LPO with any questions about ATVM program eligibility and financing parameters. Inquiries should be directed to atvmloan@hq.doe.gov. Where feasible and at DOE's discretion, LPO project evaluation and due diligence may occur in parallel with the MESC grant and cooperative agreement evaluation and subsequent award negotiations.

Receipt of a MESC award does not guarantee advancement in the LPO application process, and projects evaluated by LPO will need to meet all requirements of the ATVM underwriting process and ATVM programmatic requirements. LPO financing is subject to the availability of ATVM lending authority. ATVM regulations require, *inter alia*, that (i) the borrower demonstrates financial viability without receipt of other Federal funding associated with the proposed project, and (ii) the ATVM loan is limited to no more than 80 percent of the total eligible project costs. Eligible project costs will be determined by LPO in accordance with programmatic requirements. Applicants must clearly delineate proposed project scope between both DOE funding mechanisms (e.g., by project phase, workstream, or location). LPO financing is subject to eligibility under its ATVM program, which, *inter alia*, requires that borrowers demonstrate that the proposed loan will be made to eligible automotive manufacturers or component manufacturers to finance the reequipping, expanding, or establishing of manufacturing facilities in the United States to produce qualifying advanced technology vehicles (ATVs) or qualifying components.



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; and
3. 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.**

3. Grants.gov Registration

You must have an active [Grants.gov](#) registration to receive automatic updates when modifications to this NOFO are posted. Doing so requires a Login.gov registration as well. Step-by step instructions for applicants at [How to Apply for Grants](#) website.



B. Application Package

1. eXCHANGE

The application package requirements are outlined in the [Application Content and Form](#) 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 [Key Facts](#) section of NOFO Part 1 no later than 5 p.m. ET on the dates provided on [Key Facts](#) section. There may be more than one deadline, depending on what is submitted.

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.

D. Intergovernmental Review

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



VI. Application Review Information

A. Standards for Application Evaluation

Applications that are determined to be eligible will be evaluated in accordance with this NOFO 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 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 [Applications Specifically Not of Interest](#) section above).
- Applicant/Applications that do NOT meet the Eligibility Criteria in NOFO Parts 1 and 2.

C. Review Criteria

1. Compliance Criteria

All applicant submissions 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 [Key Facts](#) 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 [Key Facts](#), submissions submitted after the applicable deadline, or incomplete submissions.

If required in the [Key Facts](#) section, applicants must submit a letter of intent by 5:00 p.m. ET on the due date listed on the [Key Facts](#) section to be eligible to submit an application. If required, applicants who do not submit a letter of intent 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.



2. Technical Review Criteria

Applications

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

Review Criterion Overview	
Criterion	Weight
Technology Merit and Innovation	35%
Supply Chain Impact	15%
Project Financial Plan and Commercial Plan	25%
Project Management Plan and Partners	25%

Criterion 1: Technology Merit and Innovation (35%)

This criterion involves consideration of the following factors:

- **Technical Approach:** The extent to which the project will utilize a robust, impactful technology of interest for domestic critical minerals and materials production.
- **Technical Impact:** The extent to which the project will create efficient, advanced, and innovative production processes to spur innovation and drive down costs and improve yields or efficiency.
- **Technical Validity:** Accuracy of cost estimates and calculations, reasonableness of assumptions, including integration of process, equipment availability, and labor for deriving production capacity, and quantity of production capacity to be developed during the project period.
- **Feasibility:** The extent to which the project can achieve commercial production within the proposed timeframe and extent to which the project can overcome barriers to commerciality and scale up.
- **End Product:** Comprehensiveness of the manufactured product(s) description, including specifications and applications. Strength of technical validation of the end product to date.
- **Intellectual Property:** The extent to which the U.S.-owned intellectual property and content are deployed as a result of the project.
- **Efficiency of Operations:** Comprehensiveness and reasonableness of the proposed technology approach in terms of plans for recovery and reuse of production materials within the manufacturing process in addition to the extent of waste material or residue that will be discarded annually at full production capacity. Comprehensiveness and reasonableness of the plan to address potential environmental impacts including energy use, water use, habitat destruction or impairment, etc. from the manufacturing facility or facilities.

Criterion 2: Supply Chain Impact (15%)

This criterion involves consideration of the following factors:

- **Supply Chain Impact:** The extent to which the project resolves current or projected gaps in secure, resilient domestic supply chains. Reasonableness of the supply chain analysis used to assess vulnerability and impact.
- **Project Supply Chain Reasonableness:** The reasonableness of the supply chain analysis, comprehensiveness of supplier company list to include locations, degree of supply capacity to be purchased from each supplier, extent of supply provided by domestic suppliers in terms of



capacity and sales amount, justifications for the use of non-domestic suppliers, validity of certifications for foreign entities of concern, as well as strength and quantity of supplier offtake agreements and/or Letters of Commitment (Letters of Support are not applicable to this criterion). Validity of the upstream supply chain risk analysis and proposed risk mitigations.

- **Market Viability:** The extent to which the applicant demonstrates the potential market for manufactured product including that the end product(s) resulting from this project will be competitive based on a data-based market assessment.

Criterion 3: Project Financial Plan and Commercial Plan (25%)

This criterion involves consideration of the following factors:

- **Project Financial Viability:** The extent of cash in hand for the project and the realism of the plan for obtaining the balance of required project financing as well as the ability to leverage state and local incentives in addition to DOE funding, including the availability, credibility, capability, strength, and risk/terms of non-federal cost share sources to meet ongoing need.
 - The extent of the amount of cost share in proportion to the Federal funds requested.
 - The extent of leverage measured in terms of annual production capacity per government dollar invested for the entire project.
 - The extent to which the financial solvency of all entities is detailed to complete a project of this scale.
- **Business Viability:** The degree to which the application justifies the applicant's viability as an ongoing business, including current customers, and potential growth beyond DOE funding, as well as selling prices, competition, and forward-looking market trends.
- **Budget Reasonableness:** The reasonableness of the proposed project budget and spend plan for the proposed project and objectives, including the level of contingency proposed to address risk.

Criterion 4: Project Management Plan and Partners (25%)

This criterion involves consideration of the following factors:

- **Workplan:** The degree to which the project workplan including the work breakdown structure, the site suitability, equipment availability and the approach to project management are clear, detailed, timely, and reasonable, resulting in a high likelihood that the proposed project will be successful.
- **Project Schedule and Milestones:** The adequacy, reasonableness, and soundness of the project metrics, project schedule, milestones and Go/No-Go decisions to achieve the stated production within the proposed timeframe and address environmental, siting, and other regulatory requirements for the project in a timely manner.
- **Workforce Acquisition Plan:** The reasonableness and likelihood of success of the workforce acquisition strategy for the proposed project, including any training program development and recruiting/outreach necessary.
- **Risk and Mitigation Strategy:** The quality of the identification of project execution risks and the effectiveness of proposed risk mitigation plans to reduce the risk of the project.
- **Safety and Health:** The degree to which the workplan details strategy to maintain the health and safety of the workforce and workplace environment.
- **Teaming Arrangement:** The degree to which the application defines clear and appropriate roles for team members, teaming or partnership agreements are defined, and decision-making processes are in place that gives confidence in a high likelihood of success.



- **Project Team Capabilities:** The capability of the project team to address all aspects of the proposed work with a high probability of success, including the qualifications, relevant experience and expertise, and time commitment of the individuals on the team. The extent of evidence of the project teams' and key personnel's experience and success in industry and/or in similar projects.

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:

- 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.
- The degree to which the proposed project, including proposed cost share, optimizes the use of available DOE funding to achieve programmatic objectives.
- The level of industry involvement and demonstrated ability to accelerate demonstration and commercialization and overcome key market barriers.
- The degree to which the proposed project is likely to lead to increased high-quality employment and manufacturing in the United States.
- 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.
- The degree to which the proposed projects involve offtake agreements with entities that are not foreign entities of concern. The degree to which applicants producing recycled feedstocks will not export recovered critical materials to a foreign entity of concern.
- The degree to which the proposed project will employ procurement of U.S. iron, steel, manufactured products, and construction materials.
- The degree to which the proposed project collectively represents a wide range of applicant types and sizes of applicant organizations.
- The degree to which the proposed project has broad public support from the communities most directly impacted by the project.
- The degree to which the proposed project avoids duplication/overlap with other publicly or privately funded work.
- The degree to which the proposed project enables new and expanding market segments.
- The degree to which the project's solution or strategy will maximize deployment or replication.
- The degree to which the proposed project utilizes feedstock produced in the United States.
- The degree to which the proposed project is not controlled or influenced by foreign entities of concern.
- The degree to which the proposed project will reduce or minimize control of certain markets by foreign entities of concern.



VII. Selection and Award Notices

Please see the [NOFO Part 2, Selection and Award Notices](#) for information on notifications for Applications, Award Negotiations, and Post-Selection Information Requests.



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; Infrastructure Investment and Jobs Act-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
Real Property and Equipment	NOFO Part 1
Go/No-Go Review	NOFO Part 1
Cybersecurity Plan	NOFO Part 1
Rights in Technical Data	NOFO Part 1
Invoice Review and Approval	NOFO Part 1
Cost-Share Payment	NOFO Part 1
Intellectual Property and Data Security for Critical and Emerging Technology Areas	NOFO Part 1
Material Supply Plan	NOFO Part 1
U.S. Manufacturing Commitments	NOFO Part 2
Data Management and Sharing Plan (DMSP)	NOFO Part 2

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. Go/No-Go Review

If selected, each project will be subject to a periodic project evaluation referred to as a Go/No-Go Review.

A Go/No-Go Review is a risk management tool and a project management best practice to ensure that, for the current phase or period of performance, technical success is definitively achieved and potential for success in future phases or periods of performance is evaluated, prior to beginning the execution of future phases. At the Go/No-Go decision points, DOE will evaluate project performance, project schedule adherence, the extent milestone objectives are met, compliance with reporting requirements, and overall contribution to the program goals and objectives. Federal funding beyond the Go/No-Go decision point (continuation funding) is contingent upon (1) availability of federal funds appropriated by Congress for the purpose of this program; (2) the availability of future-year budget authority; (3) recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1 of the award; (4) recipient's submittal of required reports; (5) recipient's compliance with the terms and conditions of the award; (6) DOE's assessment of potential research, technology, and economic security (RTES) risks; (7) DOE's Go/No-Go decision; (8) the recipient's submission of a continuation application⁵; and (9) written approval of the continuation application by the Grants Officer.

As a result of the Go/No-Go Review, DOE may, at its discretion, authorize the following actions: (1) continue to fund the project, contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority; (2) recommend redirection of work under the project; (3) place a hold on federal funding for the project, pending further supporting data or funding; or (4) discontinue funding the project because of insufficient progress, change in strategic direction, or lack of funding.

The Go/No-Go decision is distinct from a non-compliance determination. In the event a recipient fails to comply with the requirements of an award, DOE may take appropriate action, including but not limited to, redirecting, suspending, or terminating the award.

⁵ A continuation application is a non-competitive application for an additional budget period within a previously approved project period. At least ninety (90) days before the end of each budget period, the recipient must submit its continuation application per the instructions in the award terms and conditions.



3. Cybersecurity Plan

In accordance with IIJA section 40126, applicants selected for award negotiations must submit a cybersecurity plan to DOE prior to receiving funding.⁶ These plans are intended to foster a cybersecurity-by-design approach for IIJA efforts. The Department will use these plans to ensure effective integration and coordination across its research, development, and demonstration programs. A cybersecurity plan is **not** required as part of the application submission for this NOFO, but all projects selected under this NOFO will be required to submit a cybersecurity plan during the award negotiation phase.

DOE recommends using open guidance and standards, such as the National Institute of Standards and Technology's (NIST) Cybersecurity Framework (CSF) and the DOE Cybersecurity Capability Maturity Model (C2M2).⁷ The cybersecurity plan created pursuant to IIJA section 40126 should document any deviation from open standards, as well as the utilization of proprietary standards where the awardee determines that such deviation is necessary.

Please note:

- Cybersecurity plans should be commensurate to the threats and vulnerabilities associated with the proposed efforts and demonstrate the cybersecurity maturity of the project.
- Cybersecurity plans may cover a range of topics relevant to the proposed project—e.g., software development lifecycle, third-party risks, and incident reporting.
- At a minimum, cybersecurity plans should address questions noted in IIJA section 40126 (b), Contents of Cybersecurity Plan.⁸

Supplementary guidance on the cybersecurity plan requirement is available at <https://www.energy.gov/ceser/bipartisan-infrastructure-law-implementation>.

4. 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 trade-secret-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

⁶ 42 U.S.C. § 18725

⁷ NERC critical infrastructure protection (CIP) standards for entities responsible for the availability and reliability of the bulk electric system. NIST IR 7628: 2 Smart grid cyber security strategy and requirements. NIST SP800-53, Recommended Security Controls for Federal Information Systems and Organizations: Catalog of security controls in 18 categories, along with profiles for low-, moderate-, and high-impact systems. NIST SP800-82, Guide to Industrial Control Systems (ICS) Security. NIST SP800-39, Integrated Enterprise-Wide Risk Management: Organization, mission, and information system view. AMI System Security Requirements: Security requirements for advanced metering infrastructure. ISO (International Organization for Standardization) 27001, Information Security Management Systems: Guidance on establishing governance and control over security activities (this document must be purchased). IEEE (Institute of Electrical and Electronics Engineers) 1686-2007, Standard for Substation Intelligent Electronic Devices (IEDs) Cyber Security Capabilities (this document must be purchased). DOE Cybersecurity Capability Maturity Model (C2M2).

⁸ 42 U.S.C. § 18725



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.

5. Invoice Review and Approval

DOE employs a risk-based approach to determine the level of supporting documentation required for approving invoice payments. Recipients may be required to provide some or all of the following items with their requests for reimbursement:

- Summary of costs by cost categories;
- Timesheets or personnel hours report;
- If applicable, proof of compliance with the Davis-Bacon Act and electronic submittals of certified payroll reports;
- Invoices/receipts for all travel, equipment, supplies, contractual, and other costs;
- UCC filing proof for equipment acquired with project funds by for-profit recipients and subrecipients;
- Explanation of cost share for invoicing period;
- Analogous information for some subrecipients; and
- Other items as required by DOE.

6. Cost Share Payment

DOE requires recipients to contribute the cost share amount incrementally over the life of the award. The terms and conditions of the award will specify the recipient's cost share interval, such as by **invoice period** or on a budget period basis. The recipient's cost share for each interval must always reflect the overall cost share ratio negotiated by the parties (e.g., 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). When FFRDC funding will be provided directly to the FFRDC(s) by DOE, recipients will be required to provide project cost share at a percentage commensurate with the FFRDC costs, on a budget period basis, resulting in a higher interim invoicing cost share ratio than the total award ratio.

In limited circumstances, and where it is in the government's interest, the DOE Grants Officer may approve a request by the recipient to meet its cost share requirements on a less frequent basis than required by the terms and conditions of the award. Regardless of the interval requested, the recipient must be up to date on cost share at each interval. Such requests must be sent to the Grants Officer during award negotiations and include the following information: (1) a detailed justification for the request; (2) a proposed schedule of payments, including amounts and dates; (3) a written commitment to meet that schedule; and (4) such evidence as necessary to demonstrate that the recipient has complied with its cost share obligations to date. The Grants Officer must approve all such requests before they go into effect.

7. Intellectual Property and Data Security for Critical and Emerging Technology Areas

DOE has determined that awards under this NOFO are in critical and emerging technology areas with implications for United States national and economic security. DOE's risk assessment for projects under this NOFO will include criteria such as the risk of misappropriation of subject inventions and copyright (collectively, "Intellectual Property") and non-public data ("Data") generated under the award.

Accordingly, consistent with section 4(g) of National Security Presidential Memorandum 33 and 2 CFR § 200.206(b), DOE reserves the right to require recipients to implement restrictions on providing access to



Data and licensing, assigning or otherwise transferring Intellectual Property generated under an award to entities with foreign ownership, control, or influence by a government or entity located in a Country of Risk (as defined in section 18912 of title 42 and currently Iran, North Korea, Russia, China, and Belarus), without preapproval in writing from the DOE. Any access or transfer of rights in violation of this requirement will be immediately null and void, represents non-compliance under the award, and will require that steps be taken to secure and prevent further dissemination of award Intellectual Property and Data.

8. Material Supply Plan

If selected for award negotiations, the selectee must submit a Material Supply Plan to DOE within 60 days of award. The Material Supply Plan must set out the selectee's strategy and approach for materials supply, including a new supply chain for North American and European suppliers, in form and substance satisfactory to DOE. During the life of the award, the recipient must meet the stated objectives set forth in its Material Supply Plan. The recipient must notify the Department of any revisions to the Material Supply Plan. A report on the recipient's progress towards meeting the objectives and milestones set forth in the Material Supply Plan must be included in any continuation application. The Material Supply Plan and any revisions to the plan and all related deliverables must be emailed securely to the point of contact designated by DOE.

B. Helpful Websites

[Office of Manufacturing and Energy Supply Chains | Department of Energy](#)

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 DE-FOA-0003587@netl.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 [Key Facts](#) 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 [Key Facts](#). should be submitted to InfrastructureExchangeSupport@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](#).



IX. Other Information

Please see the [NOFO Part 2, Other Information](#) for additional information and requirements that apply to all DOE NOFOs.

A. Acronyms

Acronym	Spelled Out	Acronym	Spelled Out
API	Application Programming Interface	LPM	Lead Project Manager
ARL	Adoption Readiness Level	M&O	Management and Operation
BABA	Build America Buy America	NERC	North American Electric Reliability Corporation
C2M2	DOE Cybersecurity Capability Maturity Model	NETL	National Energy Technology Laboratory
CFR	Code of Federal Regulations	NIST	National Institute of Standards and Technology
CIP	Critical Infrastructure Protection	NOFO	Notice of Funding Opportunity
CSF	Cybersecurity Framework	NSF	National Science Foundation
CRADA	Cooperative Research and Development Agreement	NSPM	National Security Policy Memorandum
DOE	United States Department of Energy	OMB	Office of Management and Budget
DOI	Digital Object Identifier	OSHA	The Occupational Safety and Health Administration
DMSP	Data Management and Sharing Plan	OSTI	DOE's Office of Scientific and Technical Information
EDX	Energy Data eXchange	OTA	Other Transaction Authority
FFRDC	Federally Funded Research and Development Center	PD	Project Director
GOGO	Government Owned and Operated	PI	Principal Investigator
ICS	Industrial Control Systems	R&D	Research and Development
IED	Intelligent Electronic Devices	RMP	Risk Management Plan
IEEE	Institute of Electrical and Electronics Engineers	SAM	System for Award Management
IIJA	Infrastructure Investment and Jobs Act	SMART	Specific, Measurable, Achievable, Relevant, and Timely
IPS	Integrated Project Schedule	SOPO	Statement of Project Objectives
IRA	Inflation Reduction Act	SPOC	Single Point of Contact
ISO	International Organization for Standardization	TEA	Techno-Economic Analysis
KPI	Key Performance Indicators	UEI	Unique Entity Identifier
LDES	Long-Duration Energy Storage	WBS	Work Breakdown Structure