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U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

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FY21 BETO Scale-up and Conversion FOA

Topic Area 1: Scale-up of Biotechnologies

FY21BETOMultiTopicFOA@ee.doe.gov

FOA Webinar

DE-FOA-0002396

April 16, 2021

Presented by

Josh Messner

Mark Shmorhun

Notice

- NO NEW INFORMATION OTHER THAN THAT PROVIDED IN THE FOA WILL BE DISCUSSED IN THE WEBINAR.

- There are no particular advantages or disadvantages to the application evaluation process with respect to participating on the webinar today.

- Your participation is completely voluntary.

Notice

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement DE-FOA-0002396 **("FOA")** and adhere to the stated submission requirements.

- This presentation summarizes the contents of FOA. If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the controlling document and applicants should rely on the FOA language and seek clarification by submitting a question to FY21BETOMultiTopicFOA@ee.doe.gov .

Anticipated Schedule:

FOA Issue Date:	April 8, 2021
Submission Deadline for Concept Papers:	April 30, 2021
Submission Deadline for Full Applications:	June 21, 2021
Expected Submission Deadline for Replies to Reviewer Comments:	July 20, 2021
Expected Date for EERE Selection Notifications:	August 23, 2021
Expected Timeframe for Award Negotiations:	August 2021 – September 2021

Agenda

1) FOA Description
2) Topic Area 1 Specific Information
3) Award Information
4) Statement of Substantial Involvement
5) Cost Sharing
6) FOA Timeline
7) Concept Papers
8) Full Applications
9) Merit Review and Selection Process
10) Registration Requirements

FOA Description

Building a clean and equitable energy economy and addressing the climate crisis is a top priority of the Biden Administration. This FOA will advance the Biden Administration's goals to achieve carbon pollution-free electricity sector by 2035 and to "deliver an equitable, clean energy future, and put the United States on a path to achieve net-zero emissions, economy-wide, by no later than 2050."

In support of these Administration priorities, the Bioenergy Technologies Office (BETO) is focused on developing technologies that convert domestic biomass and other waste resources (e.g., municipal solid waste, biosolids) into low-carbon biofuels and bioproducts.

This FOA supports high-impact technology RDD&D to accelerate the bioeconomy and, in particular, the production of low-carbon fuels for the aviation industry.

FOA Description

This FOA will support high-impact research, development, demonstration, and deployment (RDD&D) focusing on the production of low-GHG fuels for the aviation industry, as well as the long-haul trucking and marine industries by soliciting proposals to:

1. scale-up technologies;
2. cost effectively produce biomass derived sugars as an intermediate for the production of biofuels and bioproducts; and
3. support cost effective separation technologies.

In addition, the FOA will support:

4. increasing the efficiency of residential wood heaters; and
5. the production of renewable natural gas.

This webinar will focus on Topic Area 1: Scale-up of Biotechnologies Overview

Topic Area 1: Scale-up of Biotechnologies

- Significant progress has been made on biofuels through both government and private sector research, development, and demonstration (RD&D) over the last 10 years and some technologies are now ready for scaling-up to support their ultimate commercialization.
- Pilot and demonstration scale facilities are key to ensuring that ultimately commercial biorefineries are successful.
- BETO is looking for bioenergy companies that are ready to move their technologies from the laboratory to the pilot and demonstration stage and eventual commercialization.
- BETO's scale-up strategy will
  - allow projects to be funded at either the pre-pilot, pilot or demonstration scale.
  - require projects have the data to show they have completed the previous stage successfully. This can be done through a previous BETO funded deployment or can be through one the company has done on its own.
  - a consistent approach each year to provide industry with less uncertainty on BETO scale-up work.

Topic Area 1: Scale-up of Biotechnologies

- Focus on the RDD&D of sustainable aviation fuels, while still recognizing the need to RDD&D of renewable diesel and sustainable marine fuels.
- Allow the use of waste resources as a low-cost feedstock including Municipal Solid Waste (MSW) and waste Carbon Dioxide (CO_2), in addition to traditional agricultural and forestry wastes.
- Allowing bioproduct opportunities to enable biofuels development.
- Leverage first-generation biorefinery infrastructure, supply chains, and resources to integrate technologies to produce fuels from grain starch.
- Leverage other existing infrastructure from sister industries, including but not limited to petrochemical and pulp and paper.
- Leverage US-produced, oilseed crops that meet all other metrics of the topic area, including achieving at least 70% GHG reductions.
- Development and use of predictive models and high-performance computing as tools to lower risk and accelerate scale-up of biotechnologies.
- Opportunities for pre-pilot, pilot, and demonstration scale projects.

Topic Area 1: Scale-up of Biotechnologies

- Subtopic Area 1a: Pre-pilot
  - focuses on maturing and de-risking core unit operations prior to a fully integrated pilot facility or retrofitting core underperforming unit operations in an existing fully integrated pilot facility.
- Subtopic Area 1b: Pilot
  - Pilot scale validation of process technology is an essential best practice to reduce risk on the path toward commercialization of new and novel biotechnologies.
- Subtopic Area 1c: Demonstration
  - Similar to 1b, but at demonstration scale

Topic Area 1: Scale-up of Biotechnologies

- A total of $30,280,000 is anticipated to be available to fund pre-pilots (Subtopic Area 1a), pilots (Subtopic Area 1b – Phase 1), or demonstration (Subtopic Area 1c – Phase 1) projects, or a combination of the three depending on the applicant pool and the outcome of the selection process.
- Due to the high dollar value and great complexity of pilot and demonstration scale projects (Subtopic Areas 1b and 1c), a down-selection process will be employed for both of those Subtopic Areas.
- Phase 1 (Topic Areas 1b & 1c)
  - More than one application may be selected for negotiation of award, in order to verify the technology design basis.
  - After completion of Phase 1, a down-select will occur in which one (1), some, or none of Topic Areas 1b and 1c Phase 1 awards will enter into negotiations for a Phase 2 award.
- Phase 2 (Topic Areas 1b & 1c)
  - Applicants should consider Subtopic Areas 1b and 1c Phase 2 (Design, Construction, Operation) projects on the order of $15M and $40M (respectively) of federal funds plus a minimum of 50% applicant cost-share when developing their Phase 1 proposals.
  - Phase 2 funds are subject to future appropriations, availability of funds, and may be obligated to successful Subtopic Area 1b and 1c Phase 2 awards once a down-select occurs.

Subtopic Area 1a: Pre-pilot for Biofuels and Bioproducts

- $3M-$4M federal share, 20% Cost Share Required, 24 – 48 months
- Goal is to scale up key process steps from lab scale unit operations to industrially-relevant piece(s) of equipment.
- Can include a single or multiple unit operations.
- The proposed unit operation(s) within an application do not have to comprise a fully integrated pilot scale unit (TRL 6) by the end of the project, but rather can be utilized to support future integration of the entire process at pilot or demonstration scale.
- In addition, projects are encouraged to utilize predictive modeling and high-performance computing to accelerate and optimize their unit operation(s) design(s).
- Applicants must include a plan toward ASTM International (ASTM) approval (or similar regulatory approval) of a biofuel and/or bioproduct in the scope of their project.
- Bioproducts are allowable as the primary product for proposed technologies if they enable biofuel development.

Subtopic Area 1a: Pre-pilot for Biofuels and Bioproducts

Metric:	Minimum:	Stretch Target:
Fuel Selling Price	$2.75/GGE	$2.50/GGE
Cumulative Time on Stream	500 hours	1,000 hours
Continuous Time on Stream	100 hours	250 hours
Throughput Equivalent	0.5 Dry Tons Per Day (DTPD) equivalent; or 12,500 gallons of intermediate per year for an algal process equivalent; or 8 million British Thermal Units (MMBTU)/day of biogas equivalent; or 35 gallons per day of final fuel equivalent for processes that utilize CO_2 as a feed	1 DTPD equivalent; or 25,000 gallons of intermediate per year for an algal process equivalent; or 16 MMBTU/day of biogas equivalent; or 70 gallons per day of final fuel equivalent for processes that utilize CO_2 as a feed
Greenhouse Gas (GHG) Reductions	70%	80%

Subtopic Area 1a: Pre-pilot for Biofuels and Bioproducts

Feedstock	Subtopic 1a
Lignocellulosic Feedstocks	Yes
Algae	Yes
Organic Wet Waste	Yes
Sorted Municipal Solid Waste	Yes
Food Waste	Yes
Biogas	Yes
Waste CO_2	Yes
Grain Starch	No
Oilseed Crops	No

Subtopics 1b & 1c: Pilot and Demonstration Scale

- Identify, evaluate, and select applications proposing project definition, development, and execution plans for the scaling of pre-pilot biofuel and bioproduct technologies **to pilot scale** or pilot **to demonstration scale**.
  - the manufacture of sustainable aviation and marine fuels;
  - bioproducts allowable (1b) / unallowable (1c);
  - waste and underutilized carbon feedstocks;
  - novel process technologies that leverage existing first generation, grain starch, biorefinery assets and infrastructure;
  - novel process technologies that leverage US-produced, oilseed crops that meet all other metrics of the topic area, including achieving at least 70% GHG reductions.
- The integrated pilot or demonstration scale facilities must have a rated capacity to produce liquid hydrocarbon biofuel
  - Pilot Scale = 20,000 Gallons per year
  - Demonstration Scale = 1,000,000 Gallons per year

Subtopics 1b & 1c Award Structure

<table>
<tr><th>Phases</th><th>Budget Periods</th><th>Scope</th></tr>
<tr><td rowspan="3">Phase 1 – Verification & Design Basis Definition (12 Months)</td><td>BP1</td><td>Verification of baseline data presented in application</td></tr>
<tr><td colspan="2">Go/No-Go
Review of Verification outcome</td></tr>
<tr><td>BP2</td><td>Design Basis Definition</td></tr>
<tr><td colspan="3">Down Select (CD-2)
Approve project scope and begin design (Subject to future appropriations)</td></tr>
<tr><td rowspan="5">Phase 2 - Design, Construction, Operation (42-48 Months)</td><td>BP3</td><td>Project Definition - preliminary planning and design</td></tr>
<tr><td colspan="2">Go/No-Go (CD-3)
Review to approve start of construction</td></tr>
<tr><td>BP4</td><td>Project Execution - complete final design and construction</td></tr>
<tr><td colspan="2">Go/No-Go (CD-4)
Performance test to verify readiness to begin operations</td></tr>
<tr><td>BP5</td><td>Operations</td></tr>
</table>

Subtopics 1b & 1c Performance Metrics

Metric:	1b Pilot	1c Demonstration
Fuel Selling Price (max)	$2.75/GGE	$2.75/GGE
Cumulative Time on Stream (min)	1,000 hours	1,000 hours
Continuous Time on Stream (min)	500 hours	500 hours
Throughput Equivalent (min)	20,000 gallons of biofuel per year equivalent; or 25,000 gallons of intermediate per year for an algal process equivalent; or 16 MMBTU/day of biogas equivalent	1,000,000 gallons of biofuel per year equivalent; or 1,250,000 gallons of intermediate per year for an algal process equivalent; or 800 MMBTU/day of biogas equivalent
GHG Reductions (min)	70%	70%

Subtopics 1b & 1c Allowable Feedstocks

Feedstock	Subtopics 1b & 1c
Lignocellulosic Feedstocks	Yes
Algae	Yes
Organic Wet Waste	Yes
Sorted Municipal Solid Waste	Yes
Food Waste	Yes
Biogas	Yes
Waste CO_2	No
Grain Starch	Yes (fuel only)
Oilseed Crops	Yes (fuel only)

Topic 1 Verification

- After negotiation and execution of the Phase 1 award, all Phase 1 projects will be subject to an initial verification effort to review their baseline and proposed targets and will result in a Go/No-Go decision.
- The verification will require that the recipient conduct a performance test of the process proposed in its application. The performance test will require that the recipient reproduce data sets commensurate to the prior scale work presented in the application.
- The prior scale data sets must be available to DOE, (which may include delivery to DOE), or its representatives (such as an Independent Engineer), for review in support of the validation effort. The outcome of this performance test will be a primary component of the Go/No-Go decision.
- Applicants should **include this task within their proposed scope, schedule, and budget**. It is anticipated that the initial verification can take up to six months; applicants must include this task in their schedule as Budget Period 1.

Non-Responsive Applications

The following types of applications will be deemed nonresponsive and will not be reviewed or considered for an award:

- Applications that fall outside the technical parameters specified in Section I.A or I.B of the FOA.
- Applications for proposed technologies that are not based on sound scientific principles (e.g., violates the law of thermodynamics).
- Applications that fail to include the required data and information specified in the Topic Area or Subtopic Area and any supplemental content requirements as defined in Appendix H.
- Applications that do not use an acceptable feedstock for the specific Topic Area or Subtopic Area as defined in Appendix G.
- Applications proposing to use non-domestically produced feedstocks. See Appendix G for listing of acceptable feedstocks by topic area.
- Applications that propose projects employing solely commercially available technologies.

Award Information

Topic Area Number	Topic Area Title	Anticipated Number of Awards	Anticipated Minimum Award Size for Any One Individual Award (Fed Share)	Anticipated Maximum Award Size for Any One Individual Award (Fed Share)	Approximate Total Federal Funding Available for All Awards	Anticipated Period of Performance (months)
1a	Scale-up: Pre-Pilot for Biofuels and Bioproducts	0-10	$3,000,000	$4,000,000	FY21: $30,280,000 An estimated federal share of $30,280,000 of FY21 funds will be split across all three Subtopic Areas, 1a, 1b, and 1c. Depending on the strength of applications, none, some, or all funding may be directed to a single subtopic.	24-48
1b (Phase 1)	Scale-up: Pilot Scale for Biofuels and Bioproducts (Phase 1)	0-4	$500,000	$1,000,000		12
1c (Phase 1)	Scale-up: Demonstration Scale for Biofuels and Bioproducts (Phase 1)	0-4	$500,000	$1,000,000		12
1b (Phase 2)	Scale-up: Pilot for Biofuels and Bioproducts (Phase 2)	0-2	TBD	TBD	Applicants should consider Subtopic Areas 1b and 1c Phase 2 (Design, Construction, Operation) projects on the order of $15M and $40M respectively of federal funds plus a minimum of 50% applicant cost-share when developing their Phase 1 proposals. Phase 2 funds are subject to future appropriations, availability of funds, and may be obligated to successful Subtopic Area 1b and 1c Phase 2 awards once a down-select occurs (see section VI.C.)	42-48
1c (Phase 2)	Scale-up: Demonstration for Biofuels and Bioproducts (Phase 2)	0-1	TBD	TBD		42-48

Statement of Substantial Involvement

EERE has substantial involvement in work performed under awards made following this FOA. EERE does not limit its involvement to the administrative requirements of the award. Instead, EERE has substantial involvement in the direction and redirection of the technical aspects of the project as a whole. Substantial involvement includes, but is not limited to, the following:

1. EERE shares responsibility with the recipient for the management, control, direction, and performance of the project.
2. EERE 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.
3. EERE may redirect or discontinue funding the project based on the outcome of EERE's evaluation of the project at the Go/No-Go decision point(s).
4. EERE participates in major project decision-making processes

Cost Sharing Requirements

The cost share must be at least 20% and 50% for subtopic 1a, and subtopics 1b & 1c, respectively of the total allowable costs for projects (i.e., the sum of the government share, including FFRDC costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project) and must come from non-federal sources unless otherwise allowed by law. (See 2 CFR 200.306 and 2 CFR 910.130 for the applicable cost sharing requirements.)

Topic Area Number	Topic Area Title	Cost Share Requirement
1a	Scale-up: Pre-Pilot for Biofuels and Bioproducts	20%
1b (Phase 1 and 2)	Scale-up: Pilot Scale for Biofuels and Bioproducts	50%
1c (Phase 1 and 2)	Scale-up: Demonstration for Biofuels and Bioproducts	50%

Cost Share Contributions

- Contributions must be:
  - Specified in the project budget
  - Verifiable from the Prime Recipient's records
  - Necessary and reasonable for proper and efficient accomplishment of the project
- If you are selected for award negotiations, every cost share contribution must be reviewed and approved in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred.
- Please note, vendors/contractors may NOT provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.

Allowable Cost Share

- Cost Share must be allowable and must be verifiable upon submission of the Full Application
- Refer to the following applicable Federal cost principles:

Entity	Cost Principles
For-profit entities	FAR Part 31 *http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/fardfars/far/31.htm*
All other non-federal entities	2 CFR Part 200 Subpart E - Cost Principles *https://www.ecfr.gov/cgi-bin/text-idx?node=2:1.1.2.2.1.5&rgn=div6*

Allowable Cost Share

- Cash Contributions
  - May be provided by the Prime Recipient, Subrecipients, or a Third Party (may not be provided by vendors/contractors)

- In-Kind Contributions
  - Can include, but are not limited to: the donation of volunteer time or the donation of space or use of equipment.

For more information, see the Cost Share Appendix A in the FOA

Unallowable Cost Share

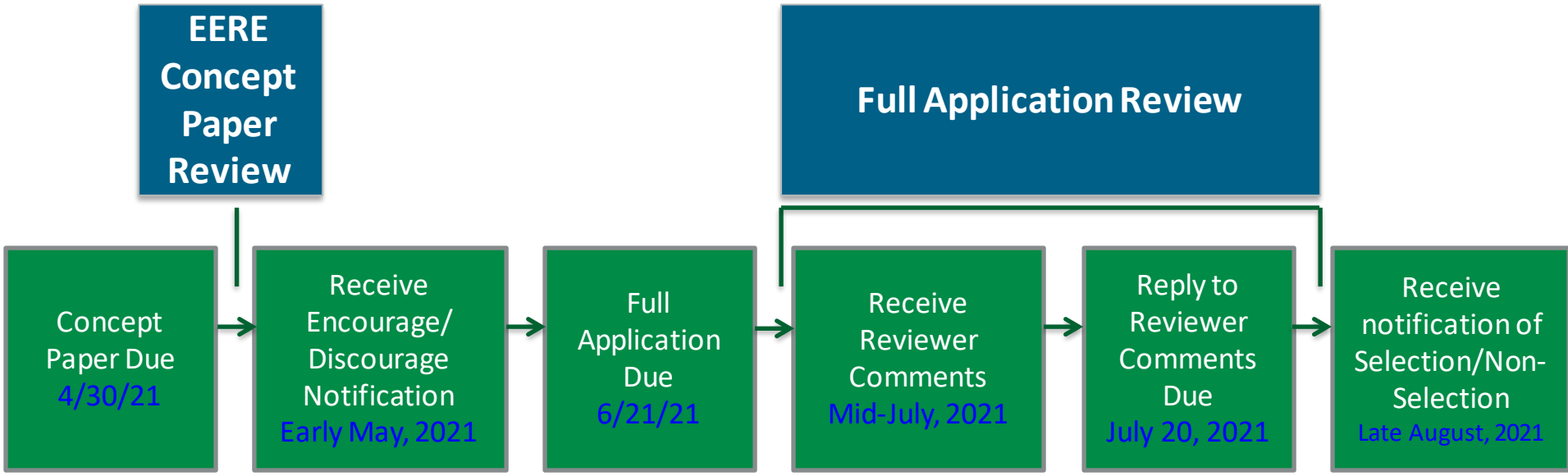
The Prime Recipient may **NOT** use the following sources to meet its cost share obligations including, but not limited to:

- Revenues or royalties from the prospective operation of an activity beyond the project period
- Proceeds from the prospective sale of an asset of an activity
- Federal funding or property
- Expenditures reimbursed under a separate Federal Technology Office
- The same cash or in-kind contributions for more than one project or program
- Vendor/contractor contributions

Cost Share Payment

- Recipients must provide documentation of the cost share contribution, incrementally over the life of the award
- The cumulative cost share percentage provided on each invoice must reflect, at a minimum, the cost sharing percentage negotiated
- In limited circumstances, and where it is in the government's interest, the EERE Contracting Officer may approve a request by the Prime Recipient to meet its cost share requirements on a less frequent basis, such as monthly or quarterly. See Section III.B.6 of the FOA.

FOA Timeline



EERE anticipates making awards by September 30, 2021

Concept Papers

- Applicants must submit a Concept Paper
  - Each Concept Paper must be limited to a single concept or technology
- Section IV.C of the FOA states what information a Concept Paper should include and the page limits.
  - Failure to include the required content could result in the Concept Paper receiving a "discouraged" determination or the Concept Paper could be found to be ineligible
- Concept Papers must be submitted by April 30, by 5:00 PM ET, through EERE Exchange
- EERE provides applicants with: (1) an "encouraged" or "discouraged" notification, and (2) the reviewer comments

Concept Paper Review

EERE makes an independent assessment of each Concept Paper based on the criteria in Section V.A.i. of the FOA. EERE will encourage a subset of applicants to submit Full Applications. Other applicants will be discouraged from submitting a Full Application.

An applicant who receives a "discouraged" notification may still submit a Full Application. EERE will review all eligible Full Applications. However, by discouraging the submission of a Full Application, EERE intends to convey its lack of programmatic interest in the proposed project in an effort to save the applicant the time and expense of preparing an application that is unlikely to be selected for award negotiations.

Concept Paper comments will only be sent to those applicants who are discouraged from submitting a full application.

Full Applications

The Full Application includes:

- **Technical Volume**: The key technical submission - info relating to the technical content, project team members, etc.
- **SF-424 Application for Federal Assistance:** The formal application signed by the authorized representative of the applicant.
- **SF-424A Budget & Budget Justification:** a detailed budget and spend plan for the project.
- **Summary for Public Release**
- **Summary Slide**
- **Administrative Documents:** E.g., U.S. Manufacturing Plan, FFRDC Authorization (if applicable), Disclosure of Lobbying Activities, Foreign Entities and Foreign Work, Block Flow Diagram and Supplemental Data, Diversity Equity and Inclusion Plan

Full Applications: Technical Volume Content

Technical Volume: the key technical component of the Full Application

Content of Technical Volume	Suggested % of Technical Volume
Cover Page	
Project Overview	10%
Technical Description, Innovation and Impact	30%
Workplan & Market Transformation Plan	40%
Technical Qualifications and Resources	20%
Diversity, Equity, Inclusion	As needed to throughout Technical Volume. A separate DEI Plan is required

Full Application Eligibility Requirements

- Applicants must submit a Full Application by June 21, 2021 by 5:00 PM ET
- Full Applications are eligible for review if:
  - The Applicant is an eligible entity Section III.A of FOA;
  - The Applicant submitted an eligible Concept Paper;
  - The Cost Share requirement is satisfied Section III.B of FOA;
  - The Full Application is compliant Section III.C of FOA; and
  - The proposed project is responsive to the FOA Section III.D of FOA
  - The Full Application meets any other eligibility requirements listed in Section III of the FOA.

Who is Eligible to Apply?

Eligible applicants for this FOA include:

1. U.S. citizens and lawful U.S. permanent residents
2. Domestic for-profit entities
3. Domestic educational institutions
4. Domestic nonprofits
5. State, local, and tribal government entities
6. DOE/National Nuclear Security Administration (NNSA) FFRDCs are eligible to apply for funding as a subrecipient, but are not eligible to apply as a prime recipient.

For more detail about eligible applicants, please see Section III.A of the FOA

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.

Prime Recipients must be in must be incorporated (or otherwise formed) under the laws of a State or territory of the United States and have a physical location for business operations in the United States. See Section III.A.iii for requirements applicable to foreign entities applying under this FOA.

Multiple Applications

Topic Areas 1a: An entity may submit more than one Concept Paper and Full Application to this FOA, provided that each application describes a unique, scientifically distinct project and provided that an eligible Concept Paper was submitted for each Full Application.

Topic Areas 1b and 1c: An entity may only submit one Concept Paper and one Full Application for each topic area of this FOA. If an entity submits more than one Concept Paper and one Full Application to the same topic area, EERE will request a determination from the applicant's authorizing representative as to which application should be reviewed.

Merit Review and Selection Process (Full Applications)

- The Merit Review process consists of multiple phases that each include an eligibility review and a thorough technical review
- Rigorous technical reviews are conducted by reviewers that are experts in the subject matter of the FOA
- Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors, to make the selection decisions

Technical Merit Review Criteria

Applications will be evaluated against the merit review criteria shown below. All sub-criteria, which are not shown, are of equal weight.

Concept Papers

- Overall FOA Responsiveness and Viability of the Project (Weight: 100%)

Full Application

- Technical Merit, Innovation, and Impact (Weight: 45%)
- Project Research and Market Transformation Plan (Weight: 30%)
- Team and Resources (Weight: 15%)
- Diversity, Equity, and Inclusion (Weight: 10%)

Replies to Reviewer Comments

- EERE provides applicants with reviewer comments
- Applicants are not required to submit a Reply - it is optional
- To be considered by EERE, a Reply must be submitted by July 20, 2021 by 5:00 PM ET and submitted through EERE Exchange
- Content and form requirements:

Section	Page Limit	Description
Text	2 pages max	Applicants may respond to one or more reviewer comments or supplement their Full Application.
Optional	1 page max	Applicants may use this page however they wish; text, graphs, charts, or other data to respond to reviewer comments or supplement their Full Application are acceptable.

Selection Factors

The Selection Official may consider the merit review recommendation, program policy factors, and the amount of funds available in arriving at selections for this FOA

Program Policy Factors

The Selection Official may consider the following program policy factors in making his/her selection decisions:

- 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 FOA;
- The degree to which the proposed project, including proposed cost share, optimizes the use of available EERE funding to achieve programmatic objectives;
- The level of industry involvement and demonstrated ability to accelerate commercialization and overcome key market barriers;
- The degree to which the proposed project is likely to lead to increased 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; and
- The degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications).

Program Policy Factors (continued)

- The degree to which the proposed project incorporates diversity, equity, and inclusion elements, including but not limited to team members from Minority Serving Institutions (e.g. Historically Black Colleges and Universities (HBCUs)/Other Minority Institutions), Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or members within underserved communities;
- The degree to which the proposed project's primary biofuel stream(s) contains the proposed processes utilizable biogenic carbon; and
- The degree to which the proposed project reduces Greenhouse Gas emissions when compared to the petroleum derived equivalent.

Registration Requirements

- To apply to this FOA, Applicants must register with and submit application materials through EERE Exchange: https://eere-Exchange.energy.gov/
- Obtain a "control number" at least 24 hours before the first submission deadline
- Although not required to submit an Application, the following registrations must be complete to received an award under this FOA:

Registration Requirement	Website
DUNS Number	http://fedgov.dnb.com/webform
SAM	https://www.sam.gov
FedConnect	https://www.fedconnect.net
Grants.gov	http://www.grants.gov

Means of Submission

- Concept Papers, Full Applications, and Replies to Reviewer Comments must be submitted through EERE Exchange at https://eere-Exchange.energy.gov
  - EERE will not review or consider applications submitted through other means
- The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements can be found at https://eere-Exchange.energy.gov/Manuals.aspx

Key Submission Points

- Check entries in EERE Exchange
  - Submissions could be deemed ineligible due to an incorrect entry
- EERE strongly encourages Applicants to submit 1-2 days prior to the deadline to allow for full upload of application documents and to avoid any potential technical glitches with EERE Exchange
- Make sure you hit the submit button
  - Any changes made after you hit submit will un-submit your application and you will need to hit the submit button again
- For your records, print out the EERE Exchange page at each step, which contains the application's Control Number

Applicant Points-of-Contact

- Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations
- It is imperative that the Applicant/Selectee be responsive during award negotiations and meet negotiation deadlines
  - Failure to do so may result in cancellation of further award negotiations and rescission of the Selection

Questions

- Questions about this FOA? Email FY21BETOMultiTopicFOA@ee.doe.gov
- All Q&As related to this FOA will be posted on EERE Exchange
    - You must select this specific FOA Number in order to view the Q&As
    - EERE will attempt to respond to a question within 3 business days, unless a similar Q&A has already been posted on the website
- Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? Email EERE-ExchangeSupport@hq.doe.gov.
    - Include FOA name and number in subject line