Inflation Reduction Act Funding for Advanced Biofuels FOA Webinar (Text Version)

Here is the text version of the webinar, "Inflation Reduction Act Funding for Advanced Biofuels FOA Webinar," presented by the U.S. Department of Energy's Bioenergy Technologies Office in March 2024.

Slide 1 (shown only, not read aloud)

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Please mute your phones and we'll begin momentarily.

Presenter begins:

Slide 2

Hello, everyone, and welcome to our webinar. Thank-you for your interest in the U.S. Department of Energy's efforts on renewable energy and energy efficiency. Before we begin, I'd like to draw your attention to the email address on the left-hand side of this cover page. This is the official mailbox to direct all your questions during the entire FOA process. Please do not contact EERE individuals directly with questions. All questions received at this mailbox are posted publicly at the Q&A section of the FOA page on EERE eXCHANGE in an anonymous way. The official answers to your questions will typically be posted within three business days. Please be careful not to submit any language that might be business sensitive, proprietary or confidential. If you have questions during this webinar, you can send them to the email address on this slide and we'll post the answers in EERE eXCHANGE.

Slide 3

Just to be clear, 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.

Slide 4

This is very important to mention: This webinar is meant to summarize the contents of the FOA. If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the guiding document that will be referenced. All applicants are strongly encouraged to carefully read the funding opportunity announcement DE-FOA-0003178 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 IRAAdvancedBiofuelsFOA@ee.doe.gov.

Slide 5

This slide shows the anticipated schedule for the FOA. The FOA has already been posted, and we are conducting the FOA informational webinar now. We will cover all requirements for this FOA later in the presentation.

The agenda for this presentation is as follows:

- 1. FOA Description (FOA Section I.A)
- 2. Topic Areas/Technical Areas of Interest (FOA Section I.B)
- 3. Award Information (FOA Section II)
- 4. Statement of Substantial Involvement (FOA Section VI.B.ix)
- 5. Cost Sharing (FOA Section III.B)
- 6. FOA Timeline (FOA cover page)
- 7. Concept Papers (FOA Section V.A.i)
- 8. Full Applications (FOA Section V.A.ii)
- 9. Merit Review and Selection Process (FOA Section V)
- 10. Registration Requirements (FOA Section VI.B.i)

We encourage you to have a copy of the FOA in front of you for reference as we go through the presentation.

Slide 7

The Bioenergy Technologies Office (BETO) is issuing this funding opportunity announcement. Awards made under this FOA will be funded, in whole, with funds appropriated by the Inflation Reduction Act (IRA) of 2022. The U.S. Environmental Protection Agency (EPA) has provided funding to BETO to implement the advanced biofuels investments under IRA Section 60108(b). Potential applicants are advised to read the FOA carefully. This FOA is intended to support EPA's Renewable Fuel Standard program and is different in allowable feedstocks and allowable fuels, among other things, compared to other recent BETO FOAs. All full applications must use the Block Flow Diagram and Supplemental Data document to show the potential lifecycle greenhouse gas emission to demonstrate the application is supporting advanced biofuels.

Slide 8

The topic areas in this FOA seek to address the following R&D needs:

- Topic Area 1: Pre-Pilot Scale-Up of Integrated Biorefinery Technologies
- Topic Area 2: Biointermediate Processing Toolbox

Slide 9 (first of three)

Both topic areas under this FOA will fund project currently at Technology Readiness Level 3 to 4 (see Appendix E). BETO will identify, evaluate, and select applications proposing the scale-up of key process steps from laboratory scale unit operations to industrially relevant pieces of equipment at the pilot scale. The meaning of industrially relevant can vary based on the technology. Indicators that equipment is industrially relevant would be that:

- The equipment is capable of receiving feedstock of the physical and chemical variability as would be seen in the commercial-scale unit;
- The equipment is capable of receiving feedstock continuously if that would be the vision of a commercial-scale unit;
- The equipment can continuously evacuate any solid, liquid, and gaseous products if that would be the vision of a commercial-scale unit;

Slide 10 (second of three)

 The equipment can operate at durations long enough to test durability of any catalyst/microorganism/solvent involved;

- The equipment is manufactured of materials that would be used in the commercial-scale unit;
- The equipment can run at the optimal conditions where throughout of unit biomass per unit time, conversion efficiency, and other size-independent metrics are optimized and similar to the values needed for the commercial-scale unit;
- The equipment is using catalyst, as applicable, manufactured in methods that would be done for the commercial-scale unit;

Slide 11 (third of three)

- The equipment is designed close enough to the vision of a demonstration- or commercial-scale such that if a sufficiency quantity of operational testing is conducted using the equipment, then a final investment decision could be made on investing on the next higher scale of technology development; and/or
- Any internal mass/heat transfer needed is performed in a way tht would be used in the commercial-scale unit.

The steps are not required to comprise a fully integrated pilot scale unit by the end of the project, but rather can be utilized to support future integration of the entire process at pilot or demonstration scale.

Slide 12

Topic Area 1 Overview: Pre-Pilot Scale-Up of Integrated Biorefinery Technologies:

Topic Area 1 will provide funding for recipients to scale up key process steps that are ready to move out of the laboratory scale and into industrially relevant pieces of equipment. The proposed unit operations within an application are not required to comprise a fully integrated pilot-scale unit by the end of the project, but rather can be utilized to support future integration of the entire process at pilot- or demonstration-scale.

Slide 13 (first of three)

Shown here is Table 2 from the FOA, showing the metrics for Topic Area 1, including Allowable Feedstocks, Non-Allowable Feedstocks, Allowable Fuel Types, Non-Allowable Fuel Types ...

Slide 14 (second of three)

... GHG Emissions, Fuel Selling Price, Cumulative Time on Stream by End of Project, Minimum Throughout by End of Project ...

Slide 15 (third of three)

... Continuous Reaction Time on Stream, at the Minimum Throughput by End of Project Metric, R&D Community Benefits Plan, Bioproducts.

Slide 16

Topic Area 1:

Projects must meet or exceed all minimum metrics listed above in Table 2 of the FOA (see Section I.B.ii). Applications must contain techno-economic and life cycle analyses that relate the key technical parameters of the proposed technology described in the proposal application to achieving cost-competitive MFSP and GHG reduction targets. Previously achieved values, scales, and durations should be delineated from the values necessary to meet the targeted MFSP to assure the level of technology advancement needed is clear. Projects selected for negotiation of award will be subject to verification immediately after award approval, within Budget Period 1. A Block Flow Diagram and Supplemental Data are required as part of the application. See Section IV.D.xix. Biofuels must demonstrate a reasonable chance of receiving ASTM International (ASTM) or other regulatory approvals, as evidenced by

substantial discussion in the narrative and inclusion of necessary tasks in the Statement of Project Objectives. Applications cannot include greater than 10% of the total project budget for earlier stage research and development.

Slide 17

Topic Area 2 Overview: Biointermediate Processing Toolbox:

Topic Area 2 seeks solutions for helping solve the most difficult remaining technical challenges preventing co-processing or processing of biointermediates (such as biocrude) to produce SAF and other advanced biofuels. Applicants to Topic Area 2 will be required, by end of project, to demonstrate proof of technology success at an industrially relevant scale of at least TRL 5 and provide a market justification for further system scaling. For purposes of Topic Area 2, industrially relevant means processing or co-processing real biointermediate at long operation times close to the time needed for a refinery to consider making an investment decision at the end of this project. The actual times needed for a refinery to make a final investment decision may, or may not, be larger than the stretch goals in Table 3, but the available funds for this FOA limit the required times and stretch targets in Table 3. Stretch targets are included because an application may find it reasonable to pursue such targets given the state-of-technology at the start of application, the cost to perform experiments, and the availability of funds for the project.

Slide 18 (first of three)

Shown here is Table 3 from the FOA, showing the metrics for Topic Area 2, including Allowable Feedstocks, Non-Allowable Feedstocks, Allowable Fuel Types ...

Slide 19 (second of three)

... Non-Allowable Fuel Type, Fuel Selling Price, Cumulative Time on Stream by End of Project, Continuous Time on Stream, Minimum Throughput by End of Project ...

Slide 20 (third of three)

... GHG Reductions, R&D Community Benefits Plan, Bioproducts.

Slide 21

Topic Area 2 Specific Requirements:

Projects must meet or exceed all minimum metrics listed above in Table 3: Topic Area 2 — Biointermediate Processing Toolbox Requirements. Applications must contain techno-economic and life cycle analyses that relate the key technical parameters of the proposed technology described in the proposal application to achieving cost competitive MFSP and GHG reduction targets. Previously achieved values, scales, and durations should be delineated from the values necessary to meet the targeted MFSP so that the level of technology advancement needed is clear. The boundaries of the analysis in the TEA and LCA should start from the feedstock. A Block Flow Diagram and Supplemental Data template are required as part of the application. See Section IV.D.xix. The boundaries of the analysis in the Block Flow Diagram and Supplemental Data should start from the feedstock. The application must include a design basis discussion showing the vision for the commercial unit, including identification of feedstock, methods for feedstock pre-processing, and description of commercial-scale reactors for conversion of biomass feedstock to biointermediate. If co-processing, this discussion should also discuss the expected level of co-processing and target metrics for fraction of biogenic carbon incorporation into the co-processed fuels; if processing neat, this discussion should also discuss the throughput capacity of the expected commercial-scale legacy refinery unit.

The Statement of Project Objectives must include an engineering deliverable, by the end of project, to demonstrate their technologies under industrially relevant conditions such as an industrial pilot or a refinery demonstration. If the technology is co-processing, the technology demonstration must include co-processing the biointermediate and identifying the biogenic content in the co-processed fuel. Biofuels must demonstrate a reasonable chance of receiving ASTM or other regulatory approvals, as evidenced by substantial discussion in the narrative and inclusion of necessary tasks in the Statement of Project Objectives. Applications cannot include greater than 10% of the total project budget for earlier stage research and development, including expenses for equipment, salaries, and supplies.

Slide 23 (first of two)

Non-Responsive Applications:

- Applications that fall outside the technical parameters specified in Sections I.A. and I.B. of the FOA.
- Applications without a for-profit industry entity or entities providing technical capability, as the
 prime recipient or subrecipients, with aggregate effort equivalent to at least 20% of the total
 cost of the project.
- Applications proposing co-processing of lipids/triglycerides (vegetable oils and/or biogenic oils/fats/greases) with petroleum.
- Applications proposing the primary fuel type to be fuel for ocean-going vessels, or commonly
 known as sustainable marine fuel; or applications proposing the primary fuel type to be ethanol
 and the feedstock to be corn starch.
- Applications that do not have a Block Flow Diagram and Supplemental Data document demonstrating that the proposed technology would have a lifecycle GHG emission of no greater than 46 grams CO2e/MJ combusted, lower heating value.
- Technologies proposing that 50% or more, of the sum of all carbon for biofuels and bioproducts, is used for bioproducts.
- Applications for proposed technologies that are not based on sound scientific principles.

Slide 24 (second of two)

Non-Responsive Applications:

- For Topic Area 1 only: applications proposing to use any non-allowable feedstocks identified in Table 2 or applications proposing to use a feedstock not listed in the allowable feedstocks row of Table 2.
- **For Topic Area 2 only:** applications proposing to use non-allowable feedstocks or applications proposing to use a feedstock not listed in the allowable feedstocks row of Table 3.
- For Topic Area 2 only: applications proposing to blend a biointermediate only at the beginning of the refining process with crude oil (i.e., pre-vacuum distillation or pre-atmospheric distillation) or only at the end of the refining process as finished fuels (i.e., blending).

Slide 25

To facilitate the formation of new project teams for this FOA, a teaming partner list is available at the website listed on this slide. We'll update the teaming partner list periodically to reflect new teaming partners who have provided their information. Any organization that would like to be included on this list should submit the information shown on this slide to the email address provided. Keep in mind, though that by submitting this information, you consent to the publication of that information. Please

also note that by facilitating this teaming partner list, EERE does not endorse or otherwise evaluate the qualifications of the entities that self-identify themselves for placement on the teaming partner list. In addition, EERE will not pay for the provision of any information, nor will it compensate any respondents for the development of such information.

Slide 26

Award Information:

EERE expects to make approximately \$9.4 million of federal funding available for new awards under this FOA subject to the availability of appropriated funds. The average award amount is anticipated to range from \$0 to \$2 million for Topic Area 1 and \$0 to \$9.4 million for Topic Area 2. EERE intends to fund cooperative agreements under this FOA. Cooperative agreements include substantial involvement, which we will discuss next.

Slide 27

Under cooperative agreements, there will be what is known as substantial involvement between EERE and the recipient during the performance of the project. BETO has substantial involvement in work performed under awards made following this FOA. BETO does not limit its involvement to the administrative requirements of the award. Instead, BETO 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:

- BETO shares responsibility with the recipient for the management, control, direction, and performance of the project.
- BETO 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.
- BETO may redirect or discontinue funding the project based on the outcome of BETO's evaluation of the project at the go/no-go decision point.
- BETO participates in major project decision-making processes.
- Because these funds were appropriated to EPA, EPA will, in collaboration with BETO, maintain substantial involvement with awards during the performance of the project. BETO will forward quarterly progress reports, invoices, and quarterly financial reports to EPA. BETO will invite EPA to progress update meetings.

Slide 28

Cost Sharing Requirements:

Applicants are bound by the cost share proposed in their full applications if selected for award negotiations. The cost share must be at least 20% of the total project costs for research and development projects. The cost share must come from non-federal sources unless otherwise allowed by law. To assist applicants in calculating proper cost share amounts, EERE has included a cost share information sheet and sample cost share calculation as Appendices A and B to this FOA.

Slide 29

The total budget presented in the application must include both federal (DOE), and non-federal (cost share) portions, thereby reflecting total project costs proposed. All costs must be verifiable from the recipient's records and be necessary and reasonable for the accomplishment of the project.

Slide 30

Allowable Cost Share:

Cost share must be allowable and must be verifiable upon submission of the full application. Please refer to this chart for your entity's applicable cost principles. It is imperative that you follow the applicable cost principles when creating your budget for the full application.

Slide 31

Allowable Cost Share:

Cost share can provided in cash and/or in-kind. It can be provided by the prime recipient, subs, or a third party. One note: Vendors and contractors can't provide cost share because that is considered a discount. Cash contributions include, but are not limited to: personnel costs, fringe costs, supply and equipment costs, indirect costs and other direct costs. In-kind contributions are those where a value of the contribution can be readily determined, verified and justified, but where no actual cash is transacted in securing the good or service comprising the contribution. Allowable in-kind contributions include but are not limited to: the donation of volunteer time or the donation of space or use of equipment.

Slide 32

Unallowable Cost Share:

Be aware that there are items that are considered unallowable cost share. If a cost is considered unallowable, it cannot be counted as cost share. This slide provides some examples of cost share that is unallowable.

Slide 33

Cost Share Payment:

Cost share must be provided on an invoice basis, unless a waiver is requested and approved by the DOE contracting officer.

Slide 34

FOA Timeline:

EERE's evaluation and selection process is shown in blue here. EERE will review concept papers, full applications, and replies to reviewer comments, which we will cover later in the presentation. The green boxes represent the actions that apply to applicants throughout the FOA process.

Slide 35

Concept Papers:

Concept papers are required for this FOA. Concept papers are brief descriptions of the proposed project. It allows applicants to submit their ideas with minimal time and expense. EERE will provide feedback on the proposed project so the applicant can make an informed decision whether to expend additional resources to prepare a full application. If an applicant fails to submit an eligible concept paper, the applicant is not eligible to submit a full application. Concept papers must be submitted by March 22, 2024, 5 p.m. ET, through EERE eXCHANGE. EERE will provide applicants with either an encouraged or discouraged notification. A "discouraged" notification conveys EERE's lack of programmatic interest in the proposed project. An applicant who receives a "discouraged" notification may still submit a full application.

Slide 36

Concept Paper Review:

This involves consideration of the following factors:

• The applicant clearly describes the proposed technology, how the technology is unique and innovative, and how the technology will advance the current state-of-the-art;

- The applicant has identified risks and challenges of the technology, regulatory and financial aspects of the proposal including possible mitigation strategies, and has shown the impact that EERE funding and the proposed project would have on the relevant field and application;
- The applicant has the qualifications, experience, capabilities and other resources necessary to complete the proposed project; and
- The proposed work, if successfully accomplished, would clearly meet the objectives as stated in the FOA.

EERE will provide applicants with either an "encouraged" or "discouraged" notification, and the reviewer comments. Please note that regardless of the date applicants receive the encouraged / discouraged notifications, the submission deadline for the full application remains the date stated on the FOA cover page.

Slide 37 (first of two)

Full Application Content Requirements:

The full application includes:

- Technical Volume: The key technical submission info relating to the technical content, project team members, etcetera
- Resumes
- Letters of Commitment
- Statement of Project Objectives (SOPO)
- SF-424 Application for Federal Assistance: The formal application signed by the authorized representative of the applicant
- Budget Justification Workbook: A detailed budget and spend plan for the project
- Summary / Abstract for Public Release
- Summary Slide
- Subrecipient Budget Justification

Slide 38 (second of two)

- DOE work proposal for FFRDC (if applicable) and authorization from contracting officer for FFRDC
- SF-LLL Disclosure of Lobbying Activities
- Foreign Entity Waiver Requests and Foreign Work Waiver Requests (if applicable)
- R&D Community Benefits Plan
- Current and Pending Support
- Transparency of Foreign Connections
- Potentially Duplicative Funding Notice
- Block Flow Diagram and Supplemental Data

Slide 39

Full Applications: Technical Volume Content:

The key technical component of the full application is the technical volume, which helps applicants frame the technical information that the application will be evaluated on. The technical volume provides information regarding what the project is, how the project tasks will be accomplished, and the project timetable. The technical volume is comprised of a cover page, project overview, technical description, innovation, and impact, workplan, technical qualifications and resources. Please note that the percentages listed here are suggested and they are not mandatory.

• The cover page will be a one-page document and provides basic information on their project, such as title, topic area, points of contact, etcetera.

- The project overview constitutes approximately 10% of the technical volume and provides information on project background, goals, impact of EERE funding.
- The Technical Description, Innovation, and Impact section is approximately 30% of the technical volume. It provides information on project relevance and outcomes, feasibility, and innovation / impacts. This ultimately provides the justification as to why EERE should fund the project.
- The workplan is the key element to the technical volume, and constitutes approximately 40% of the technical volume. It details the proposed milestones and project schedule. If selected for award negotiations, the workplan serves as the starting point when negotiating the Statement of Project Objectives.
- The Technical Qualifications and Resources section is approximately 20% of the technical volume. It provides applicants an opportunity to provide information about the proposed project team and demonstrate how the applicant will facilitate the successful completion of the proposed project.

Full Application Eligibility Requirements:

As we previously pointed out, applicants must submit full applications by May 24, 2024. EERE will conduct an eligibility review, and full application will be deemed eligible if:

- The applicant is an eligible entity Section III.A of the FOA.
- The applicant submitted an eligible concept paper.
- The cost share requirement is satisfied Section III.B of the FOA.
- The full application is compliant Section III.C of the FOA.
- The proposed project is responsive to the FOA Section III.D of the FOA.
- Requirements for DOE/NNSA FFRDCs listed as the applicant Section III.E of the FOA.
- Requirements for DOE/NNSA and non-DOE/NNSA FFRDCs included as a subrecipient Section III.E of the FOA..
- The full application meets any other eligibility requirements listed in Section III of the FOA.

Slide 41 (first of two)

Who is Eligible to Apply?

The proposed prime recipient and subrecipients must be domestic entities. The following types of domestic entities are eligible to participate as a prime recipient or subrecipient of this FOA:

- 1. Institutions of higher education;
- 2. For-profit entities;
- 3. Non-profit entities; and
- 4. State and local governmental entities, and federally recognized American Indian tribes and Alaska native entities.

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.
- To qualify as a domestic entity, the entity must be organized, chartered or incorporated (or otherwise formed) under the laws of a particular state or territory of the United States; have majority domestic ownership and control; and have a physical place of business in the United States.
- Non-DOE/NNSA FFRDCs are eligible to participate as a subrecipient but are not eligible to apply
 as a prime recipient. For Topic Area 2, DOE/NNSA FFRDCs are eligible to apply for funding as a
 prime recipient or subrecipient.

• In limited circumstances, DOE may approve a waiver to allow a foreign entity to participate as a prime recipient or subrecipient. A foreign entity may submit a full application to this FOA, but the full application must be accompanied by an explicity written waiver request.

Slide 42 (second of two)

- For both Topic Areas 1 and 2, if the prime recipient is not a for-profit entity providing technical capability, then one or more for-profit entity partners providing technical capability must participate as subrecipients with aggregate effort equivalent to at least 20% of the total cost of the project.
- DOE/NNSA and non-DOE/NNSA FFRDCs are restricted from applying for funding as prime
 recipient for Topic Area 1, but are eligible to participate as a subrecipient. For Topic Area 1, each
 FFRDC is permitted to participate as a subrecipient with effort equivalent up to 50% of the total
 estimated cost of the project; however, in aggregate, total FFRDC effort shall not exceed 50% of
 the total estimated cost of the project.

Slide 43

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.

Slide 44

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.

Slide 45

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

- Criterion 1: Technical Merit, Innovation, and Impact (50%)
- Criterion 2: Project Demonstration and Market Transformation Plan (20%)
- Criterion 3: Team and Resources (10%)
- Criterion 4: R&D Community Benefits Plan (20%)

See Section V.A.ii of the FOA.

Slide 46

Criteria for Replies to Reviewer Comments:

The full applications are reviewed by experts in the FOA topic areas. After these experts review the applications, EERE will provide applicants with reviewer comments. Applicants will have a brief opportunity to review the comments and prepare a short reply to reviewer comments, responding to comments however they desire. The reply to reviewer comments is due by the date and time provided on this slide. Applicants should anticipate receiving the independent reviewer comments approximately three business days before this due date. The reply to reviewer comments is an optional submission. Applicants are not required to submit a reply to reviewer comments. This is a customer-centric process that provides applicants a unique opportunity to correct misunderstandings and misinterpretations, and

to provide additional data that might influence the selection process in their favor. The replies are considered by the reviewers and the selection official. Replies to reviewer comments must conform to the content and form requirements listed here, including maximum page length. If a reply to reviewer comments is more than three pages in length, EERE will review only the first three pages and disregard any additional pages.

Slide 47

Pre-Selection Clarification:

DOE may determine that pre-selection qualifications are necessary from one or more applicants. Pre-selection clarifications are distinct from and less formal than pre-selection interviews. These pre-selection clarifications will solely be for the purposes of clarifying the application. If DOE contacts an application for pre-selection clarification purposes, it does not signify the applicant has been selected for negotiation of award, or that the applicant is among the top-ranked applications. DOE will not reimburse applicants for expenses relating to the pre-selection clarifications, nor will these costs be eligible for reimbursement as pre-award costs.

Slide 48

Selection Factors:

The selection official may consider the merit review recommendation, the Federal Consensus Board's recommendations, program policy factors, and the amount of funds available in arriving at selections for this FOA.

Slide 49 (first of two)

After the merit review process, the selection official may consider the following program policy factors to come to a final selection decision. The selection official may consider the following program policy factors in determining which full applications to select for award negotiation (see Section V.C.i):

- 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 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 project, or group of projects, represent a desired geographic distribution (considering past awards and current applications);
- The degree to which the proposed project incorporates applicant or team members from minority-serving institutions and partnerships with minority business enterprises, minorityowned businesses, woman-owned businesses, veteran-owned businesses, or Indian tribes;

Slide 50 (second of two)

- The degree to which the proposed project, when compared to the existing DOE project portfolio and other projects to be selected from the subject FOA, contributes to the total portfolio meeting the goals reflected in the R&D Community Benefits Plan criteria;
- 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's primary biofuel stream contains the proposed processes' utilizable biogenic carbon;
- The degree to which the proposed project reduces greenhouse gas emissions when compared to the petroleum derived equivalent, including if the proposed project reduces greenhouse gas emissions by 70% or greater; and
- The degree to which the proposed project's biofuel streams include sustainable aviation fuel.

Registration Requirements:

There are several one-time actions before submitting an application in response to this FOA, and it is vital that applicants address these items as soon as possible. Some may take several weeks, and failure to complete them could interfere with an applicant's ability to apply to this FOA or to meet the negotiation deadlines and receive an award if the application is selected.

- System for Award Management: Register with the System for Award Management (SAM);
 designating an electronic business point of contact (e-biz POC) and obtaining a special password
 called an MPIN are important steps in SAM registration. Please update your SAM registration
 annually.
- FedConnect: Register in FedConnect. To create an organization account, your organization SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect "Ready, Set, Go" guide at the FedConnect site.
- Grants.gov: Register in Grants.gov to receive automatic updates when amendments to this FOA
 are posted. Please note that concept papers and full applications will not be accepted through
 Grants.gov.

Slide 52

Means of Submission:

All required submissions must come through EERE eXCHANGE. EERE will not review or consider applications submitted through any other means.

Slide 53

Key Submission Points:

Check entries in EERE eXCHANGE. Submissions could be deemed ineligible due to an incorrect entry. EERE strongly encourages applicants to submit one to two 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.

Slide 54

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.

Slide 55

Questions:

Questions about this FOA? Email IRAAdvancedBiofuelsFOA@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 three 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.

With that, I will end the FOA webinar. Thank-you.