



## Landscape Design for Sustainable Bioenergy Systems

Informational Webinar for FOA Applicants  
DE-FOA-0001179

[BETOLandscapeDesignFOA@ee.doe.gov](mailto:BETOLandscapeDesignFOA@ee.doe.gov)

# Notice

---

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement DE- FOA-0001179 (**“Landscape Design for Sustainable Bioenergy Systems”**) and adhere to the stated submission requirements.
- This presentation summarizes 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 controlling document and applicants should rely on the FOA language and seek clarification from EERE.
- If you believe there is an inconsistency, please contact [BETOLandscapeDesignFOA@ee.doe.gov](mailto:BETOLandscapeDesignFOA@ee.doe.gov)
- A digital copy of the slides will be posted on EERE Exchange following today’s webinar.

# Agenda

---

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

# FOA Description

---

- The mission of the Bioenergy Technologies Office (BETO) within EERE is to develop and transform biomass resources into commercially viable, high performance biofuels, bioproducts, and biopower through targeted research, development, demonstration, and deployment supported through public and private partnerships.
- EERE announces a funding opportunity to support interdisciplinary research and development (R&D) projects that apply landscape design approaches to integrate cellulosic feedstock production into existing agricultural and forestry systems while maintaining or enhancing environmental and socio-economic sustainability including ecosystem services and food, feed, and fiber production.

# FOA Description

---

- For the purposes of this FOA, cellulosic feedstock production refers to dedicated annual and perennial energy crops, use of agricultural and forestry residues, or a combination of these options.
- “Landscape design” refers to a spatially explicit plan for resource allocation and management that considers local context, engages diverse stakeholders, conserves priority natural and social functions of the landscape, monitors key measures of sustainability, and adjusts management to improve performance over time.
- Applying landscape design to bioenergy production systems is a promising approach for meeting multiple environmental, social, and economic objectives, such as maintaining or enhancing ecosystem services, food/feed/fiber production, and landowner profitability.

# FOA Description

---

- Each project must establish targets for the following metrics for the defined spatial area and system under investigation.
  - Increase adoption (measured through allocation of land to cellulosic feedstock production before/after project) and social sustainability of bioenergy production by defining the value proposition for landowners and communities through positive economic return, reduced risk, and/or improvements in environmental quality.
  - Maintain or enhance environmental sustainability, including biomass productivity, greenhouse gas mitigation, water quantity, water quality, soil quality, air quality (e.g., emissions), and/or biodiversity throughout production and harvesting of cellulosic biomass as compared to the baseline agricultural or forestry production system.
- Applications must meet this requirement by providing estimates and describing the approach for establishing baselines and targets in their Workplan and by providing the information described in the Environmental Sustainability Table shown in Appendix H.

# Topic Areas/Technical Areas of Interest

---

There is only one (1) Topic Area for this FOA. The Applicant must provide technical details and a Workplan that addresses the following three components. The three components are interdependent and should be integrated throughout the length of the project.

## 1. Multi-Stakeholder Landscape Design Process

For a spatially defined area, the project will develop and implement a landscape design process for integrating cellulosic feedstock production into an existing agricultural and/or forestry system (at a small subwatershed or comparable scale). This process must engage landowners and other community stakeholders through workshops, surveys, or other means to evaluate possible alternatives for future landscapes that consider the goals and interests of the community.

# Topic Areas/Technical Areas of Interest

---

## 2. Assessment of Environmental Sustainability Indicators

Within the defined spatial area, the project must implement an experimental design that quantifies environmental sustainability metrics for biomass productivity, greenhouse gas mitigation, water quantity, water quality, soil quality, air quality, and biodiversity (such as indicators in McBride et al. 2011) of producing cellulosic energy crops and/or using agricultural or forestry residues.

Each project must establish targets for a set of sustainability indicators for the defined spatial area and system under investigation. The Workplan must describe the methodology for developing, monitoring, and evaluating progress towards achieving those targets.



# Topic Areas/Technical Areas of Interest

---

## 3. Assessment of Feedstock Supply and Logistics

The project must develop a reasonable approach for feedstock harvesting, logistics, and provision of feedstocks to one or more real or potential biomass users, with sufficient data to understand feedstock production, establishment, availability, quality, and cost, and overall logistics costs. Projects must complete a techno-economic and lifecycle analysis with supporting data for the proposed feedstock harvesting and logistics system.

Section 1.B lists required Outcomes and Deliverables. In addition to other means of dissemination (e.g. peer-reviewed publications), applicable deliverables will be placed in the Bioenergy Knowledge Discovery Framework (KDF) so they are accessible to the public and other researchers.

# Award Information

---

<b>Total Amount to be Awarded</b>	Up to \$14,000,000* (Subject to the availability of appropriated funds)
<b>Average Award Amount</b>	EERE anticipates making 1 to 3 awards that range from approximately \$3,000,000 to \$14,000,000 per award.
<b>Types of Funding Agreements</b>	Cooperative Agreements
<b>Period of Performance</b>	Up to 60 months
<b>Expected Technology Readiness Level (TRL)</b>	5-6 (at start of project)
<b>Cost Share Requirement</b>	Cost share must be greater than or equal to 20% of total project costs.

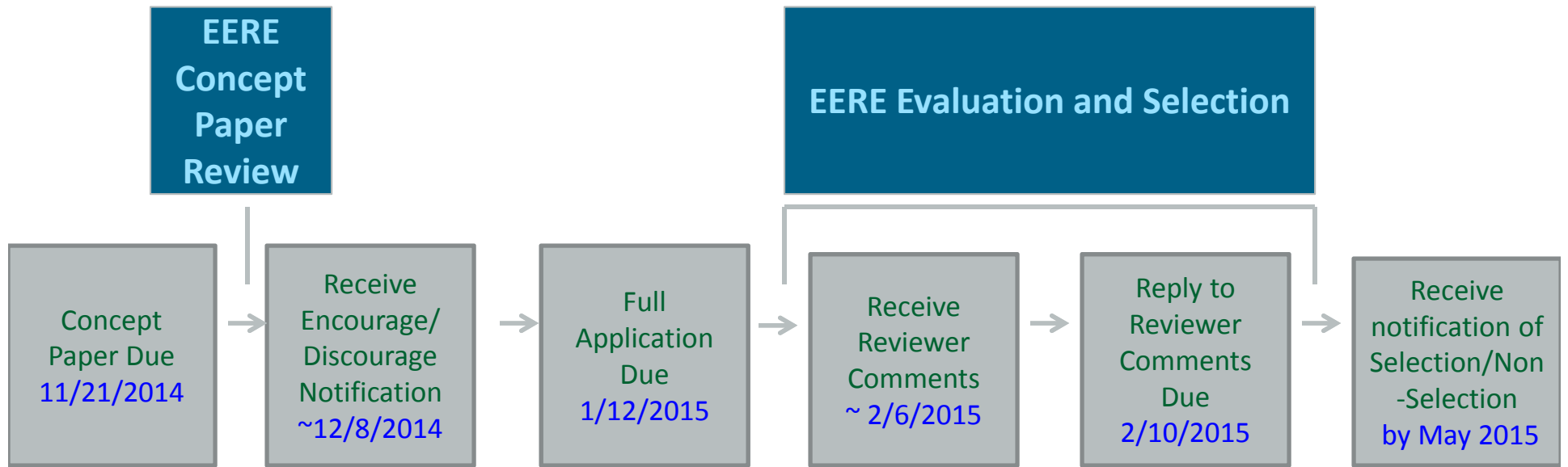
## Landscape Design for Sustainable Bioenergy Systems

---

### Anticipated Schedule:

<b>FOA Issue Date:</b>	<b>October 20, 2014</b>
<b>FOA Informational Webinar:</b>	November 3, 2014, 1:30-3:00 PM Eastern
<b>Submission Deadline for Concept Papers:</b>	November 21, 2014, 5 PM Eastern
<b>Submission Deadline for Full Applications:</b>	January 12, 2015, 5 PM Eastern
<b>Submission Deadline for Replies to Reviewer Comments:</b>	February 10, 2015, 5 PM Eastern
<b>Expected Date for EERE Selection Notifications:</b>	April 28, 2015
<b>Expected Timeframe for Award Negotiations:</b>	60 days

# FOA Timeline



EERE anticipates making awards by July 2015.

# Concept Papers

---

- Applicants ***must*** submit a Concept Paper
  - Each Concept Paper must be limited to a single concept or technology
- The Concept Paper must include a project description (See Section IV.C of the FOA)
  - The project description is limited to 3 pages, with 1 page addendum
- Concept Papers must be submitted by November 21, 2014, 5pm Eastern through EERE Exchange, and must meet the content and form requirements (See Section IV.C of the FOA).
- EERE provides applicants with: (1) an “encouraged” or “discouraged” notification, and (2) the reviewer comments
- 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.

# Concept Paper Criteria (Section V.A.1)

---

EERE will evaluate Concept Papers based on the following technical review criteria:

- **Criterion 1: Impact of the Proposed Project Relative to State of the Art (50%)**
  - Method used to identify current state of the art
  - If technical success is achieved, the proposed idea would significantly improve environmental, technical and/or economic performance relative to the state of the art.
- **Criterion 2: Overall Scientific and Technical Merit (50%)**
  - The proposed project is unique and innovative; and
  - The proposed approach is without major technical flaws.

# 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.
  - **Budget & Budget Justification (EERE 159):** a detailed budget and spend plan for the project. Additional budget justifications are necessary for subawardees.
  - **Summary/Abstract for Public Release**
  - **Summary Slide**
  - **Environmental Sustainability Information (Appendix H)**
  - **Feedstock Production and Logistics Information (Appendix I)**
  - **Administrative Documents:** E.g., U.S. Manufacturing Plan, FFRDC Authorization (if applicable), Disclosure of Lobbying Activities, etc.

See Section IV.D of the FOA for complete details

## Full Applications: Technical Volume Content (Section IV.D.2)

- **Technical Volume: the key technical component of the Full Application (30 pages)**

Content of Technical Volume	Approximate % of Technical Volume
Cover Page	
Project Overview	~ 10%
Technical Description, Innovation and Impact	~ 25%
Workplan	~ 50%
Technical Qualifications and Resources	~ 15%



# Full Application Eligibility Requirements

---

- Applicants must submit a Full Application by January 12, 2015, 5pm Eastern
- 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 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's Eligible to Apply?

---

Eligible applicants for this FOA include:

1. Individuals
2. Domestic Entities
3. Foreign Entities
4. Incorporated Consortia
5. Unincorporated Consortia

For more detail about each eligible applicant, please see Section III.A of the FOA for eligibility requirements

# Multiple Applications

---

Applicants may submit more than one application to this FOA, provided that each application describes a unique, scientifically distinct project.

# Merit Review and Selection Process (Full Applications)

---

- The Merit Review process consists of multiple phases that each include an initial 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

# Evaluation criteria Weighting for Full Applications

---

- Section V.A.2

	Criterion	Weighting
1	Technical Merit, Innovation, and Impact	40%
2	Project Research and Commercialization Plan	35%
3	Team and Resources	25%

# Full Application Merit Review Criteria 1 (40%)

---

## Technical Merit, Innovation, and Impact

### Technical Merit and Innovation

- Extent to which the proposed process is innovative and has the potential to advance the state of the art;
- Degree to which the current state of the art and the proposed advancement are clearly described;
- Extent to which the application specifically and convincingly demonstrates how the applicant will move the state of the art to the proposed advancement; and
- Sufficiency of technical detail in the application to assess whether the proposed work is scientifically meritorious and revolutionary, including relevant data, calculations, and discussion of prior work in the literature with analysis that supports the viability of the proposed work.

### Impact of Technology Advancement

- How the project supports the topic area objectives and target specifications and metrics;
- The potential impact of the project on advancing the state of the art; and
- The potential for the proposed advancements to be applicable and beneficial in multiple locations for broader regional/national impact.

# Full Application Merit Review Criteria 2 (35%)

---

## Project Research and Commercialization Plan

### Research Approach and Workplan

- Degree to which the approach and critical path have been clearly described and thoughtfully considered;
- Degree to which the task descriptions are clear, detailed, timely, and reasonable, resulting in a high likelihood that the proposed Workplan will succeed in meeting the project goals; and
- Degree to which the interests and support of the local community and other relevant stakeholders have been considered.

### Identification of Technical Risks

- Discussion and demonstrated understanding of the key technical risk areas involved in the proposed work, and the quality of the mitigation strategies to address them.

### Baseline, Metrics, and Deliverables

- The level of clarity in the definition of the baseline, metrics, and milestones; and
- Relative to a clearly defined experimental baseline, the strength of the quantifiable metrics, milestones, and mid-point deliverables defined in the application, such that meaningful interim progress will be made.

### Market Transformation Plan

- Identification of target market, competitors, and distribution channels for proposed approaches and deliverables along with known or perceived barriers to market penetration, including mitigation plan; and
- Comprehensiveness of commercialization plan including but not limited to landowner adoption, product development and/or service plan, commercialization timeline, financing, product marketing, legal/regulatory considerations including intellectual property, infrastructure requirements, data dissemination, U.S. manufacturing plan etc., and product distribution.

# Full Application Merit Review Criteria 3 (25%)

---

## Team and Resources

- The capability of the Principal Investigator(s) and the proposed team to address all aspects of the proposed work with a good chance of success. Qualifications, relevant expertise, and time commitment of the individuals on the team;
- The sufficiency of the facilities to support the work;
- Degree to which the proposed consortia/team demonstrates the ability to facilitate and expedite further development and commercial deployment of the proposed technologies;
- Degree to which the proposed consortia/team includes diverse disciplines (environmental, economic, and social) and perspectives (including but not limited to researchers, producers/landowners, industry, extension offices, conservation practitioners, and non-governmental organizations);
- Level of participation by project participants as evidenced by letter(s) of commitment and how well they are integrated into the Workplan; and
- Reasonableness of budget and spend plan for proposed project and objectives.



# Replies to Reviewer Comments

---

- EERE provides applicants with reviewer comments following evaluation of all Full Applications
- Applicants have until 2/10/2015 at 5 PM Eastern to prepare a Reply to Reviewer Comments (“Reply”) to respond to comments
  - Page Limit: 3 Pages, including charts, graphs, etc.
- Applicants are not required to submit a Reply. It is optional.
- To be considered by EERE, a Reply must be submitted by the deadline and submitted through EERE Exchange.
- Please see Sections IV.F. and V.A.3 for additional information regarding Replies to Reviewer Comments

# 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 (Section V.C.1)

---

- The Selection Official may consider the following program policy factors in making his/her selection decisions:
  - The degree to which the proposed project, including proposed cost shares, optimizes the use of available EERE funding to achieve programmatic objectives;
  - The level of industry and landowner involvement, interdisciplinary stakeholder collaboration, and demonstrated ability to commercialize energy or related technologies;
  - Technical, market, organizational, and environmental risks associated with the project;
  - Whether the proposed project is likely to lead to increased employment and manufacturing in the United States;
  - Whether 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 directly addresses EERE's statutory mission and strategic goals.

# 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	<a href="http://fedgov.dnb.com/webform">http://fedgov.dnb.com/webform</a>
SAM	<a href="https://www.sam.gov">https://www.sam.gov</a>
FedConnect	<a href="https://www.fedconnect.net">https://www.fedconnect.net</a>
Grants.gov	<a href="http://www.grants.gov">http://www.grants.gov</a>

# 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 Confirmation 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, expected to take place between 04/28/2015 through 06/29/2015
  - Failure to do so may result in cancelation of further award negotiations and rescission of the Selection

# 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 that the Go/No Go decision point.
4. EERE participates in major project decision-making processes.



# Cost Share Contributions

---

- Applicants must contribute a minimum of 20% of the total project costs for R&D projects.
- 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
- 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

# 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
Educational Institutions	2 CFR Part 220
State, Local, and Indian Tribal Governments	2 CFR Part 225
Non-profit Organizations	2 CFR Part 230
For-profit Organizations	FAR Part 31

# Allowable Cost Share

---

- Cash Contributions
  - May be provided by the Prime Recipient, Subrecipients, or a Third Party
- In-Kind Contributions
  - Can include, but are not limited to: personnel costs, indirect costs, facilities and administrative costs, rental value of buildings or equipment, and the value of a service, other resource, or third party in-kind contribution

# 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
  - Independent research and development (IR&D) funds
  - The same cash or in-kind contributions for more than one project or program

# 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 billing period must reflect 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.

# Questions

---

- Questions about this FOA? Email [BETOLandscapeDesignFOA@ee.doe.gov](mailto:BETOLandscapeDesignFOA@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](mailto:EERE-ExchangeSupport@hq.doe.gov).
  - Include FOA name and number in subject line
- A digital copy of the slides will be posted on EERE Exchange following today's webinar