

Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE)

Industrial Assessment Centers

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Modification 0001	May 13, 2016
Submission Deadline for Letter of Intent:	April 28, 2016, 5:00pm ET
Informational Webinar:	April 21, 2016, 12pm ET
Submission Deadline for Full Applications:	May 20, 2016, 5:00pm ET
Expected Date for EERE Selection Notifications:	July 2016
Expected Timeframe for Award Negotiations	July to September 2016

- To apply to this FOA, applicants must register with and submit application materials through EERE Exchange at https://eere-Exchange.energy.gov, EERE's online application portal.
- Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations. If an application is selected for award negotiations, it is not a commitment to issue an award. It is imperative that the applicant/selectee be responsive during award negotiations and meet negotiation deadlines. Failure to do so may result in cancelation of further award negotiations and rescission of the Selection.

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Modifications

All modifications to the Funding Opportunity Announcement are [HIGHLIGHTED] in the body of the FOA.

Mod. No.	Date	Description of Modification
0001	5/13/2016	The purpose of this modification is to revise Section I.A and Section IV.C.ii Technical Volume-Technical Qualifications, Resources and Commitment to clarify that letters of commitment do not count towards the 20-page limit for the Technical Volume; revise Section IV.C.ii Technical Volume-IAC Operations Approach to correct a formatting error and clarify that the Milestone Summary and Go/No-Go Decision Point Summary bullets were intended to be separate and not part of the bullet above regarding plans to integrate satellite and other configurations; and to add the Milestone and Go/No-Go requirement to Section IV.C.iii Statement of Project Objectives to clarify that these are both required to be fully addressed in the Statement of Project Objectives submitted with the application.



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Questions about this FOA? Email IACs@ee.doe.gov.

Problems with EERE Exchange? Email EERE- <u>EERE-ExchangeSupport@hq.doe.gov</u> Include FOA name and number in subject line.



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I. Funding Opportunity Description

A. Description/Background

Summary

The Federal Government has been funding the Industrial Assessment Center (IAC) program, formerly called the Energy Analysis and Diagnostic Center program, since 1976. The goal of the IAC program is twofold: first, to provide energy efficiency, productivity, sustainability and competitiveness recommendations to small and medium-sized enterprises (SMEs), currently defined as having gross annual sales below \$100 million, fewer than 500 employees, and annual energy bills between \$100,000 and \$2.5 million; and second, to help address a growing shortage of engineering professionals with applied energy and manufacturing-related skills. The U.S. Department of Energy (DOE) currently funds, through Cooperative Agreements, 24 IACs located throughout the country who are completing their 5 year projects. The IACs are coordinated by DOE staff and a DOE selected Field Manager.¹

As described in Section III.A, only the following entities are eligible to apply under this FOA: a U.S. college or university that is an integral part of its institutional structure and that has at least one of its four year undergraduate programs accredited by the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) or equivalent (The IAC must be in the engineering department that holds the programmatic ABET or equivalent accreditation). The U.S. college or school of engineering must be physically located in the U.S.

Led by engineering faculty and staff, the selected IACs will perform assessments for SMEs, mostly in their geographic region, which will result in energy and water savings, waste reduction, opportunities for smart manufacturing, potential enhancements to cyber security and related information technologies, and sustainability and productivity improvements for the manufacturers. To date, the IAC program has provided over 17,000 assessments and over 130,000 recommendations for energy saving measures. On average, an IAC assessment leads to 5-7% implemented annual energy savings and productivity improvements.² The IAC students will gain real world technical experience from these assessments as well as relevant skills in interacting with plant and corporate management; preparing executive-level briefings and plant-specific reports; and

subject line.

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¹ U.S. Department of Energy, Advanced Manufacturing Office. IAC Field Manager website. https://iac.university/.

² U.S. Department of Energy, Advanced Manufacturing Office. IAC Database, https://iac.university/#database.

facilitating continuous improvement in energy management. In addition to providing assessments to SMEs, selected IACs may also provide a limited number of special assessments to other types of entities such as waste water processing facilities, institutional facilities and other types of facilities where DOE determines that the special assessments are consistent with the overall IAC programmatic objectives.

In addition to the tasks above, successful applicants will need to effectively coordinate their efforts and support existing DOE program elements (e.g., Better Plants, Combined Heat & Power Technical Assistance Partnerships, ISO 50001/Superior Energy Performance, DOE training and tools).³ IACs also need to be in a position to promote other external technical resources, including but not limited to industrial/manufacturing interests, trade associations, utility efficiency programs, State energy programs, other DOE manufacturing/industrial priorities, etc. Additionally, IACs should be prepared to respond to information requests and be a resource on energy efficiency for manufacturers in the region.

Objectives

The selected IACs will provide resources to the often under-served small and medium sized manufacturers, critical suppliers and employers of Americans. As such, the prospective IACs must demonstrate their capabilities to recruit and serve small and medium-sized manufacturers and describe their approach to identify and communicate recommendations to reduce energy, water and waste usage; increase productivity and competitiveness, and provide enhancements to cyber security and related information technologies. These recommendations need to be effectively reported to the SMEs, together with estimates of the energy savings opportunities, implementation costs, and payback periods.

In addition to the services outlined above, DOE is looking for new and innovative ways to accomplish its programmatic goals for manufacturers, and encourages applicants to propose creative approaches to delivering IAC services that coincide with DOE priorities. These priorities are projected to include:

 Smart manufacturing – identifying opportunities for productivity improvements through the availability and use of smart communications between machines, manufacturing processes, operators and management;⁴

³ U.S. Department of Energy, Advanced Manufacturing Office. Technical Assistance program website, http://www.energy.gov/eere/amo/ta.

⁴ National Institute of Standards and Technology. Smart Manufacturing Systems Design and Analysis Program website, http://www.nist.gov/el/msid/syseng/smsda.cfm

- Cybersecurity⁵ assisting SMEs in threat detection and mitigation. According
 to the Manufacturing Extension Partnership (MEP), 62 percent of data system
 breaches impacted smaller organizations, and in 2011 the average cost to a
 small or medium-sized business from a cyber-attack was over \$188,000;⁶
- Energy management systems helping SMEs to continuously improve their energy performance by exploring the entire spectrum of management systems, from foundational to ISO 50001 to Superior Energy Performance;⁷ and
- Wastewater and water facilities supporting the efficiency and productivity of water utility facilities, including facility operations as well as the biological component of wastewater treatment.⁸

Each IAC will also be expected to provide extensive training for undergraduate and graduate engineering students in industrial processes, energy assessment procedures, and energy management systems. This training may be provided through coursework as well as via hands-on (in facility) activities. Applicants must describe how they intend to promote the development and national adoption of an accredited B.S. degree in energy engineering or equivalent field; or describe their plans for enhancement of an existing degree program that addresses the entire range of pedagogical content within the context of IAC activities.

Successful applicants will also define how they will maximize the student experience; increase student technical knowledge and business sense; and develop their understanding of key industrial concepts, including industrial supply chains, sustainability issues, and management systems. Students should be encouraged to develop and publish technical papers, online learning materials and assessment-derived replicable best practices and other resources. Applicants should also highlight additional value-added experience opportunities for the IAC, including:

⁵ The White House, Office of the Press Secretary. Fact Sheet: Cybersecurity National Action Plan, https://www.whitehouse.gov/the-press-office/2016/02/09/fact-sheet-cybersecurity-national-action-plan.

⁶ National Institute of Standards and Technology. Cybersecurity Framework website, http://www.nist.gov/cyberframework/.

⁷ U.S. Department of Energy, Advanced Manufacturing Office. Superior Energy Performance website. http://energy.gov/isosep.

⁸ U.S. Department of Energy, Water Energy Tech Team website. http://www.energy.gov/water-energy-tech-team.



- Scholarship or internship opportunities for students;
- Traineeships with National Laboratories or other research institutions;
- Inclusion of other disciplines (e.g., business, marketing, environmental studies etc.) into training and student employee makeup;
- Inclusion of opportunities for students to pursue ISO 50001 auditor certifications or other third-party accreditations and certifications;
- Creation and maintenance of a robust student and alumni social networking system; and
- Other SME or DOE supporting functions, as developed by individual applicants.

DOE requests that each prospective IAC Applicant submit a partnership plan that includes partners such as electric and gas utilities; state energy, economic development or other agencies; other government assistance including Manufacturing Extension Partnerships; nonprofit or industry associations or other partners. Each partner should submit a Letter of Commitment that clearly shows the cost share support, both cash and in-kind, pledged to the IAC and how the partnership will lead to better access to SMEs; increased numbers of SMEs assisted; increased implementation of the opportunities identified in the IAC assessment; support for the SME beyond the IAC interaction; and/or develop or deliver resources for SMEs that the IACs do not assist (these letters of commitment do not count towards the 20-page limit for the Technical Volume as discussed in Section IV.C.ii).

Historically each IAC completes approximately 20 assessments per year. Given the limited number of actual assessments, successful applicants will describe how they intend to reach non-participating SMEs in their region. Applicants should submit an outreach plan that clearly states resources to be developed and innovative methods to share industry best practices and lessons learned with the widest possible audience. Applicants are encouraged to partner with academic, government, nonprofit or industry groups to develop and deploy energy and water savings guidance and 'how to' resources to this hard to reach community. In addition, some means of tracking the uptake of these soft touch points should be developed.

Technical Targets

All IACs selected for award under this FOA will be subject to a project evaluation referred to as a Go/No-Go Review at the end of each Budget Period. IACs not able to meet the performance criteria, as described in the approved Statement of Project Objectives (SOPO), may receive a No-Go Decision, and as a result EERE will discontinue funding the project for subsequent budget periods. See Section II.A.ii and Section VI. B.xii for further information on the Go/No-Go Review process.

It is anticipated under the proposed funding levels that each IAC will train at least 10 students annually, issue certificates of achievement to at least 5 students annually, and conduct approximately 20 assessments per year along with the required, and timely, follow-on reporting, tracking, implementation, and management improvement activities. Each IAC will develop at least 5 technical resources designed to assist non-participating SMEs and non-participating educational or industrial organizations.

Additional technical targets may be developed over time and will be incorporated through revisions to the SOPO.

Each IAC will be required to submit an individualized SOPO containing milestones and a schedule of deliverables. The SOPO must outline a plan to train students, conduct assessments, develop online resources (including videos, best practices massive open online courses) for students and SMEs, and engage in other related activities which enhance students' and SME experience, and specifically calls out all partnership and outreach activities. The SOPO activities, milestones and associated budget will be negotiated on an annual basis as necessary to reflect anticipated funding and it will be developed in collaboration with the DOE lead for the IACs, the DOE Project Officer and the IAC Technical Field Manager. This will offer all parties an opportunity to adjust individual IAC efforts and funding based on prior performance as well as programmatic goals. Annual funding will vary and depend on the amount of leverage and the overall effectiveness of the activities at the Center.

Activities at all IACs are expected to collectively result in the following benefits based on past experience: approximately 200-300 new engineering students will be trained annually and a minimum of one hundred students per year will receive their DOE-issued certificate of achievement. The current criteria for receiving this certificate can be obtained on the IAC website (http://www.iacforum.org:8080/iac/CertificateGuidelines.pdf). DOE will periodically review these certification criteria to ensure that they are aligned with the DOE workforce development strategy.

The IAC program will consider, within this FOA, various IAC configurations to facilitate the delivery of the key program elements. In the modified configurations, the Prime Applicant must meet all qualifications as outlined in this FOA and will be considered the Prime Recipient if selected for award negotiations. Other institutions involved as described below (Satellite or Support Center) will operate as sub-recipients to the Prime Recipient, and are not required to meet all of the Prime Applicant eligibility set forth in Section III.A. (such as accreditation by the Engineering Accreditation Commission (EAC) or the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET)). These modified configurations include elements such as:

- Satellite Centers: One location that meets the Eligibility requirements in Section III.A will serve as the Main Center and assume the lead role as Prime Applicant. One or more satellite locations, which could include other universities or other campuses within the same University system, may be included to perform certain elements of the work under strict guidance and supervision of the Main Center; and
- Support Centers: One location that meets the Eligibility requirements in Section III.A will serve as the Main Center and assume the lead role as Prime Applicant. One or more support centers will provide support in delivering the services of the IAC (e.g., collaboration with Business, Marketing, Communications or other departments within the university).

Eligible minority-serving institutions are encouraged to apply as the Prime Applicant (Main Center) or to partner with a Prime Applicant to participate on the proposed Project Team as a Satellite or Support Center.

In addition to funding provided for the above activities, DOE also periodically provides the IACs the opportunity to conduct special projects that further enhance student workforce development or other center performance activities. For example, as part of their specialized energy engineering experience undergraduate and graduate students could pursue assessment-inspired research projects that are consistent with approved SOPO activities in the areas of manufacturing and industrial energy efficiency, waste and water reduction, and productivity improvement. Each IAC Applicant should set aside a portion of their annual proposed budget (approximately \$25,000) for these special projects.

DOE has established performance goals and expectations for the IAC program. These performance goals are focused on the following:

- Providing a high-quality educational experience that has value in the marketplace for approximately 10 engineering students per center annually;
- Awarding a DOE certificate to a minimum of five students per year per IAC;
- Completing approximately 20 assessments per year per IAC;
- Executing a partnership and outreach plan that increases program implementation and provides energy and water saving assistance to nonparticipants;

- Developing and communicating resources (success stories, energy systems research, etc.) that advance the mission of the IAC program and support other SMEs; and
- Providing high quality, value added services to SMEs, including cybersecurity, smart manufacturing, energy management, waste reduction, sustainability & productivity improvements and other leading issues.

Additional information about the current status of the IAC program, universities currently participating in the program, IAC student activities and DOE's portfolio of EERE programs may be found at https://iac.university/technicalDocuments, http://www.iacforum.org and http://www.eere.doe.gov.

All work under EERE funding agreements must be performed in the United States. See Section IV.J.3 and Appendix C.

B. Applications Specifically Not of Interest

The following types of applications will be deemed nonresponsive and will not be reviewed or considered (See Section III.D of the FOA):

 Applications that fall outside the technical parameters specified in Section I.A of the FOA.

C. Authorizing Statutes

The programmatic authorizing statutes are EPAct 2005, Section 911, (a) (2) (C), as codified at 42 USC 16191 (a)(2)(C), and EISA 2007, Section 452 (e), as codified at 42 USC 17111 (e).

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

II. Award Information

A. Award Overview

i. Estimated Funding

EERE expects to make approximately \$35,000,000 of Federal funding available for new awards under this FOA, subject to the availability of appropriated funds. EERE anticipates making approximately 20 to 30 awards under this FOA. EERE may issue one, multiple, or no awards. Federal funding for individual awards may vary between \$1,250,000 and \$1,750,000.

EERE may establish more than one budget period for each award and fund only the initial budget period(s). Funding for all budget periods, including the initial budget period, is not guaranteed. Before the expiration of the initial budget period(s), EERE may perform a down-select among different recipients and provide additional funding only to a subset of recipients.

ii. Period of Performance

EERE anticipates making awards that will run up to 60 months in length. Project continuation will be contingent upon satisfactory performance and Go/No-Go decision review. At the Go/No-Go decision points, EERE will evaluate project performance, project schedule adherence, meeting milestone objectives, compliance with reporting requirements, and overall contribution to the program goals and objectives. As a result of this evaluation, EERE will make a determination to continue the project, re-direct the project, or discontinue funding the project.

iii. New Applications Only

EERE will accept only new applications under this FOA. EERE will not consider applications for renewals of existing EERE-funded awards through this FOA.

B. EERE Funding Agreements

Through Cooperative Agreements EERE provides financial and other support to projects that have the potential to realize the FOA objectives. EERE does not use such agreements to acquire property or services for the direct benefit or use of the United States Government.

i. Cooperative Agreements

EERE generally uses Cooperative Agreements to provide financial and other support to Prime Recipients.

Through Cooperative Agreements, EERE provides financial or other support to accomplish a public purpose of support or stimulation authorized by Federal statute. Under Cooperative Agreements, the Government and Prime Recipients share responsibility for the direction of projects.

EERE has substantial involvement in all projects funded via Cooperative Agreement. See Section VI.B.9 of the FOA for more information on what substantial involvement may involve.

III. Eligibility Information

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

A. Eligible Applicants

i. Statement of Applicant Eligibility.

Only the following entities are eligible to apply for funding as Prime Recipients under this FOA:

U.S. college or school of engineering that is an integral part of its institutional structure and that has at least one of its four year undergraduate programs accredited by the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) or equivalent (The IAC must be in the engineering department that holds the programmatic ABET or equivalent accreditation). The U.S. college or school of engineering must be physically located in the U.S.

B. Cost Sharing

The cost share must be at least 20% 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.)

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.

i. Legal Responsibility

Although the cost share requirement applies to the project as a whole, including work performed by members of the project team other than the Prime Recipient, the Prime Recipient is legally responsible for paying the entire cost share. The Prime Recipient's cost share obligation is expressed in the Assistance Agreement as a static amount in U.S. dollars (cost share amount) and as a percentage of the Total Project Cost (cost share percentage). If the funding agreement is terminated prior to the end of the project period, the Prime Recipient is required to contribute at least the cost share percentage of total expenditures incurred through the date of termination.

The Prime Recipient is solely responsible for managing cost share contributions by the Project Team and enforcing cost share obligation assumed by Project Team members in subawards or related agreements.

ii. Cost Share Allocation

Each Project Team is free to determine how best to allocate the cost share requirement among the team members. The amount contributed by individual Project Team members may vary, as long as the cost share requirement for the project as a whole is met.

iii. Cost Share Types and Allowability

Every cost share contribution must be allowable under the applicable Federal cost principles, as described in Section IV.J.1 of the FOA. In addition, cost share must be verifiable upon submission of the Full Application.

Project Teams may provide cost share in the form of cash or in-kind contributions. Cash contributions may be provided by the Prime Recipient or Subrecipients. Allowable in-kind contributions include, but are not limited to: rental value of buildings or equipment, the value of a donated service or resource, or third party in-kind contribution.

Project teams may use funding or property received from state or local governments to meet the cost share requirement, so long as the funding was not provided to the state or local government by the Federal Government.

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 (e.g., Federal grants, equipment owned by the Federal Government); or
- Expenditures that were reimbursed under a separate Federal Program.

Project Teams may not use the same cash or in-kind contributions to meet cost share requirements for more than one project or program.

Cost share contributions must be specified in the project budget, verifiable from the Prime Recipient's records, and necessary and reasonable for proper and efficient accomplishment of the project. As all sources of cost share are considered part of total project cost, the cost share dollars will be scrutinized under the same Federal regulations as Federal dollars to 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.

Applicants are encouraged to refer to 2 CFR 200.306 as amended by 2 CFR 910.130 & 10 CFR 603.525-555 for additional guidance on cost sharing.

iv. Cost Share Contributions by FFRDCs

Because FFRDCs are funded by the Federal Government, costs incurred by FFRDCs generally may not be used to meet the cost share requirement. FFRDCs may contribute cost share only if the contributions are paid directly from the contractor's Management Fee or another non-Federal source.

v. Cost Share Verification

Applicants are required to provide written assurance of their proposed cost share contributions in their Full Applications.

Upon selection for award negotiations, applicants are required to provide additional information and documentation regarding their cost share contributions. Please refer to Appendix A of the FOA.

vi. Cost Share Payment

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

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. Regardless of the interval requested, the Prime Recipient must be up-to-date on cost share at each interval. Such requests must be sent to the Contracting 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 Prime Recipient has complied with its cost share obligations to date. The Contracting Officer must approve all such requests before they go into effect.

C. Compliance Criteria

Letters of Intent and Full Applications must meet all Compliance criteria listed below or they will be considered noncompliant. EERE will not review or consider noncompliant submissions, including Letters of Intent and Full Applications that were: submitted through means other than EERE Exchange; submitted after the applicable deadline; and/or submitted incomplete. EERE will not extend the submission deadline for applicants that fail to submit required information due to server/connection congestion.

i. Compliance Criteria

1. Letters of Intent (Optional)

Letters of Intent are deemed compliant if:

- The applicant entered all required information and clicked the "Create Submission" button in EERE Exchange <u>and</u> submitted via email to IACs@ee.doe.gov by the deadline stated in the FOA.
- A letter of Intent is not required in order to be eligible to submit a Full Application.

2. Full Applications

Full Applications are deemed compliant if:

- The Full Application complies with the content and form requirements in Section IV.D of the FOA; and
- The applicant successfully uploaded all required documents and clicked the "Submit" button in EERE Exchange by the deadline stated in the FOA.



D. Responsiveness Criteria

All "Applications Specifically Not of Interest," as described in Section I.B of the FOA, are deemed nonresponsive and are not reviewed or considered.

E. Other Eligibility Requirements

Requirements for DOE/NNSA and non-DOE/NNSA Federally Funded Research and Development Centers Included as a Subrecipient

DOE/NNSA and non-DOE/NNSA FFRDCs may be proposed as a Subrecipient on another entity's application subject to the following guidelines:

1. Authorization for non-DOE/NNSA 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.

2. Authorization for DOE/NNSA FFRDCs

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

Authorization is granted for the [Enter Laboratory Name] 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.

3. Value/Funding

The value of and funding for the FFRDC portion of the work will not normally be included in the award to a successful applicant. Usually, DOE will fund a DOE/NNSA FFRDC contractor through the DOE field work proposal system and non-DOE/NNSA FFRDC through an interagency agreement with the sponsoring agency.

4. Cost Share

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



5. Responsibility

The Prime 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 Prime Recipient and the FFRDC contractor.

6. Limit on FFRDC Effort

The scope of work to be performed by the FFRDC may not be more significant than the scope of work to be performed by the Prime Recipient.

F. Limitation on Number of Full Applications Eligible for Review

EERE will only consider one Full Application per institution of higher education. For example, EERE will only consider one Full Application per university (not one submission per each college or school under the university). This limitation does not prohibit an entity from collaborating on other submissions to this FOA (e.g., as a proposed Satellite or Support Center or other subrecipient) as long as the entity is not the Prime Applicant for those submissions.

G. Questions Regarding Eligibility

EERE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. The decision whether to submit an application in response to this FOA lies solely with the applicant.

IV. Application and Submission Information

A. Application Process

The application process will include two phases: an optional Letter of Intent phase and a required Full Application phase. EERE performs an initial eligibility review of the Full Applications to determine whether they meet the eligibility requirements of Section III of the FOA. EERE will not review or consider submissions that do not meet the eligibility requirements of Section III. All submissions must conform to the following form and content requirements, including maximum page lengths (described below) and must be submitted via EERE Exchange at https://eere-exchange.energy.gov/, unless specifically stated otherwise. EERE will not review or consider submissions submitted through means other than EERE Exchange, submissions submitted after the applicable deadline, and incomplete submissions.
EERE will not extend deadlines for applicants who fail to submit required information and documents due to server/connection congestion. A control number will be issued when an applicant begins the Exchange application

process. This control number must be included with all Application documents, as described below.

The Letter of Intent and Full Application must conform to the following requirements:

- Each must be submitted in Adobe PDF format unless stated otherwise.
- Each must be written in English.
- All pages must be formatted to fit on 8.5 x 11 inch paper with margins not less than one inch on every side. Use Times New Roman typeface, a black font color, and a font size of 12 point or larger (except in figures or tables, which may be 10 point font). A symbol font may be used to insert Greek letters or special characters, but the font size requirement still applies.
 References must be included as footnotes or endnotes in a font size of 10 or larger. Footnotes and endnotes are counted toward the maximum page requirement.
- The Control Number must be prominently displayed on the upper right corner of the header of every page. Page numbers must be included in the footer of every page.
- Each submission must not exceed the specified maximum page limit, including cover page, charts, graphs, maps, and photographs when printed using the formatting requirements set forth above and single spaced. If applicants exceed the maximum page lengths indicated below, EERE will review only the authorized number of pages and disregard any additional pages.

Applicants are responsible for meeting each submission deadline. Applicants are strongly encouraged to submit their Letters of Intent and Full Applications at least 48 hours in advance of the submission deadline. Under normal conditions (i.e., at least 48 hours in advance of the submission deadline), applicants should allow at least 1 hour to submit a Letter of Intent or Full Application. Once the Letter of Intent or Full Application is submitted in EERE Exchange, applicants may revise or update that submission until the expiration of the applicable deadline. If changes are made, the applicant must resubmit the Letter of Intent or Full Application before the applicable deadline.

EERE urges applicants to carefully review their Letters of Intent and Full Applications and to allow sufficient time for the submission of required information and documents. All Full Applications that pass the initial eligibility review will undergo comprehensive technical merit review according to the criteria identified in Section V.A.2 of the FOA.



i. Additional Information on EERE Exchange

EERE Exchange is designed to enforce the deadlines specified in this FOA. The "Apply" and "Submit" buttons will automatically disable at the defined submission deadlines. Should applicants experience problems with Exchange, the following information may be helpful.

Applicants that experience issues with submission <u>PRIOR</u> to the FOA deadline: In the event that an applicant experiences technical difficulties with a submission, the Application should contact the Exchange helpdesk for assistance (<u>EERE-ExchangeSupport@hq.doe.gov</u>). The Exchange helpdesk and/or the EERE Exchange system administrators will assist Applicants in resolving issues.

Applicants that experience issues with submissions that result in late submissions: In the event that an applicant experiences technical difficulties so severe that they are unable to submit their application by the deadline, the applicant should contact the Exchange helpdesk for assistance (EERE-ExchangeSupport@hq.doe.gov). The Exchange helpdesk and/or the EERE Exchange system administrators will assist the applicant in resolving all issues (including finalizing submission on behalf of and with the applicant's concurrence). PLEASE NOTE, however, those applicants who are unable to submit their application on time due to their waiting until the last minute when network traffic is at its heaviest to submit their materials will not be able to use this process.

B. Application Forms

The application forms and instructions are available on EERE Exchange. To access these materials, go to https://eere-Exchange.energy.gov and select the appropriate funding opportunity number.

Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA, it must be broken into parts and denoted to that effect. For example:

ControlNumber_LeadOrganization_Project_Part_1
ControlNumber LeadOrganization Project Part 2, etc.

i. Content and Form of the Letter of Intent

It is recommended that Applicants submit a Letter of Intent by the Due Date set forth on the FOA cover page. The Letter of Intent should not contain any proprietary or sensitive business information. Two steps are required to complete the Letter of Intent submission process. First, Applicants need to

create a Letter of Intent record in EERE Exchange by selecting the 'Apply' button next to the FOA; populating the required information; and selecting the 'Create Letter of Intent' button at the bottom of the record. Note that a control number will be issued when an Applicant selects the 'Apply' button in EERE Exchange. This control number must be included in the Letter of Intent document as described below, as well as in all the Full Application documents.

Secondly, the Applicant must create a separate Letter of Intent document for email submission to EERE. The Letter of Intent must not exceed two (2) pages, including cover page, charts, graphs, maps, and photographs when printed using standard 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right), single spaced. Do not include any Internet addresses (URLs) that provide information necessary to review the letter. Save the information in a single file named

"ControlNumber_LeadOrganization_LetterofIntent.pdf."

Letters of Intent must be submitted via email to the following email address: IACs@ee.doe.gov.

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

- Project Title;
- Lead Organization;
- University Department that will host the IAC and Accreditation details:
- % of effort contributed by the Lead Organization;
- The Project Team, including:
 - o The Principal Investigator for the Prime Recipient;
 - o Team Members (i.e., Subrecipients); and
 - Key Participants (i.e., individuals who contribute in a substantive, measureable way to the execution of the proposed project) and;
- Abstract The abstract provided should be not more than 200 words in length, and should provide a truncated explanation of the proposed project.

C. Content and Form of the Full Application

Applicants must submit a Full Application by the specified due date and time to be considered for funding under this FOA. Applicants must complete the following application forms found on the EERE Exchange website at https://eere-Exchange.energy.gov/, in accordance with the instructions.

All Full Application documents must be marked with the Control Number issued to the applicant when the 'Apply' button was hit in EERE Exchange.

i. Full Application Content Requirements

EERE will not review or consider ineligible Full Applications (see Section III of the FOA).

Each Full Application shall be limited to a single concept or technology. Unrelated concepts and technologies shall not be consolidated in a single Full Application.

Full Applications must conform to the following requirements:

Submission	Components	File Name
Full Application	Technical Volume (See Chart in Section IV.D.2)	ControlNumber_LeadOrganization_Technic alVolume
(PDF, unless stated	Statement of Project Objectives (Microsoft Word format) (10 page limit)	ControlNumber_LeadOrganization_SOPO
otherwise)	SF-424 Budget Justification (EERE 335) (Microsoft Excel format. Applicants must use the template available in EERE Exchange)	ControlNumber_LeadOrganization_App424 ControlNumber_LeadOrganization_Budget _Justification
	Summary for Public Release (1 page limit)	ControlNumber_LeadOrganization_Summa ry
	Summary Slide (1 page limit, Microsoft PowerPoint format)	ControlNumber_LeadOrganization_Slide
	Subaward Budget Justification (EERE 335) (Microsoft Excel format. Applicants must use the template available in EERE Exchange)	ControlNumber_LeadOrganization_Subawa rdee_Budget_Justification
	Budget for FFRDC, if applicable Authorization from cognizant Contracting Officer for FFRDC, if applicable	ControlNumber_LeadOrganization_FWP ControlNumber_LeadOrganization_FFRDCA uth
	SF-LLL Disclosure of Lobbying Activities Performance of Work in the United States waiver requests, if applicable	ControlNumber_LeadOrganization_SF-LLL ControlNumber_LeadOrganization_Waiver

Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA it must be broken into parts and denoted to that effect. For example:

ControlNumber_LeadOrganization_TechnicalVolume_Part_1
ControlNumber LeadOrganization TechnicalVolume Part 2, etc.

<u>EERE will not accept late submissions that resulted from technical difficulties due to uploading files that exceed 10MB.</u>

EERE provides detailed guidance on the content and form of each component below.

ii. Technical Volume

The Technical Volume must be submitted in Adobe PDF format. The Technical Volume must conform to the following content and form requirements, including maximum page lengths. If applicants exceed the maximum page lengths indicated below, EERE will review only the authorized number of pages and disregard any additional pages. This volume must address the Merit Review Criteria as discussed in Section V.A.2 of the FOA. Save the Technical Volume in a single PDF file using the following convention for the title: "ControlNumber_LeadOrganization_TechnicalVolume".

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

The Technical Volume to the Full Application may not be more than 20 pages, including the cover page, table of contents, and all citations, charts, graphs, maps, photos, or other graphics, and must include all of the information in the table below. The applicant should consider the weighting of each of the evaluation criteria (see Section V.A.2 of the FOA) when preparing the Technical Volume.

Section/Page Limit	Description
Cover Page	The cover page should include the applicant's name, project title, the
	Federal and recipient cost share amounts in the proposed budget,
	both the technical and business points of contact, names of all partner
	organizations, and any statements regarding confidentiality.

Project Overview (Approximately 10% of the Technical Volume)

The Project Overview section should contain the following information:

- Background: The Applicant should discuss the background of its organization, including the history, successes, and current technical assistance status relevant to the topic being addressed in the Full Application. Any satellite or support centers should be identified.
- Project Goal: The Applicant should explicitly identify the targeted improvements to the current technical assistance status and the critical success factors in achieving that goal.
- DOE Impact: The Applicant should discuss the impact that DOE funding would have on the proposed project. Applicants should specifically explain how DOE funding, relative to prior, current, or anticipated funding from other non-federal public and private sources, is necessary to achieve the project objectives.
- Relevance and Outcomes: The Applicant should provide a
 detailed description of the proposed Industrial Assessment
 Center program, including the principles and objectives that
 will be pursued during the project. This section should describe
 the relevance of the proposed project to the goals and
 objectives of the FOA, including the potential to meet specific
 DOE technical targets or other relevant performance targets.
 The Applicant should clearly specify the expected outcomes of
 the project.

IAC Operations Approach

(Approximately 30% of the Technical Volume)

IAC Operations Approach section in the application should include a summary of the Applicant's plan to provide training to students, how assessments will be planned and conducted, how implementation follow-up will be conducted, how non-participating manufacturers will be reached, and how partnerships will be leveraged during the entire process. Elements to be included are:

- The organizational model, operation plan, proposed tasks and organizational structure to achieve IAC objectives
- A discussion of how IAC Program goals and established guidelines/protocols will implemented by the Center.
- Plans to incorporate relevant standards and industry energy efficiency practices such as ISO 50001 energy management system standards and Superior Energy Performance into Center operations.
- Plans to incorporate smart manufacturing, cyber security, and wastewater and water-energy relationships into assessments performed by the center.

- Plans for ensuring the health and safety requirements are implemented for faculty and students on industrial assessments.
- Outreach plan for developing and distributing resources to assist non-IAC participating manufacturers in savings energy, water and waste as well as promoting productivity and emerging focus areas, including cyber security, energy management.
- Plans to integrate satellite centers or other configurations into the main centers operations (if applicable).
- Milestone Summary: The Applicant should provide a summary of milestones for the project to demonstrate success, where success is defined as technical achievement rather than simply completing a task. All milestones should be SMART (Specific, Measurable, Achievable, Relevant, and Timely) to the extent practical. At least one milestone per quarter for the duration of the project should be proposed in the Statement of Project Objectives submitted with the application.
- Go/No-Go Decision Point Summary: The Applicant should provide a summary of project-wide go/no-go decision points for each 12-month budget period. The Applicant should propose the specific technical criteria to be used to make the go/no-go decision.

Student Staffing, Training and Integration with University Curriculum (Approximately 20% of the Technical Volume)

The Student Staffing, Training and Integration with University Curriculum should contain the following information:

- A plan for student staffing and utilization that emphasizes a comprehensive student training program including: assessment experience, training in tools and other resources related to industrial energy systems, professional exposure and relevant coursework. Plan should describe a process to ensure that graduating IAC students achieve a measurable level of competency in all or most of the areas noted above, and what that competency measure will be.
- Plan to provide enhanced student training and experience, including discussion of feasibility and demonstration of committed partnerships (such as commitment letters) that could include internships/co-ops for students with partners.
- Plan to provide opportunities for student participation in third party administered ISO 50001 certification programs
- Provide detailed information about planned curricula, including courses, workshops and seminars, research experiences, and mentoring that will be incorporated into the proposed Industrial Assessment program.

Plans for new curriculum development to meet the scientific and technical training needs of the Industrial Assessment program and inclusion of other disciplines (e.g., business, marketing, environmental studies etc.) into training and student employee makeup. Plans promote the development or enhancement of an accredited bachelor's degree in engineering that addresses the entire range of pedagogical content within the context of IAC activities. Collaborations and The Collaborations and Industrial Demographics section should contain **Industrial** the following information: **Demographics** Describe any partnerships with other organizations (utilities; (Approximately 20% federal, state, and local entities, industry, associations etc.) of the Technical through which the achievement of AMO program goals are Volume) enhanced and both the IAC and the partnering organization benefit. Describe how these partners will interact with Center activities and, as appropriate, how they bring direct resources including scholarships, co-op, internships and other forms of cost share. Include how these partnerships may be expanded through the course of the project. o Include recent participation and past experience in regional industrial collaborations that support and enhance establishment and operation of an IAC as well as of utilizing leverage from these collaborations. Describe past and current partnerships, particularly with industrial companies in the region that have been utilized for student education and real-world experience. Describe the industrial demographics of the proposed area of service in which assessments will be conducted. Include the available number and types of Small and Medium sized manufacturers that will be assisted by the Center. Describe the challenges in the proposed area of service as related to implementation of energy efficiency recommendations, productivity improvements, implementation of new technology (such as smart manufacturing technologies) and any other issues that manufacturers face. Describe the ability to effectively deliver IAC services to Small and Medium sized manufacturers in economically disadvantaged areas in the region. The Technical Qualifications and Resources should contain the **Technical** Qualifications, following information: Resources and

Commitment

(Approximately 20% of the Technical Volume)

- Describe the experience and qualifications of the proposed Principal Investigator/Director for the center and his/her current position within the university or college.
- Describe the Project Team's qualifications and expertise, including those of key sub-recipients and proposed partners. Include:
 - The roles and the work to be performed by each Key Participant;
 - Business agreements between the Applicant and each Key Participant;
 - o How the various efforts will be integrated and managed;
 - o Confidentiality and Intellectual Property issues; and
 - Communication plans
- Describe the time commitment of the key team members to support the project.
- Describe the Project Team's existing equipment and facilities 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
- This section should also include relevant, previous efforts, demonstrated collaborations with industry, and other relevant activities, including how these enable the Applicant to achieve the project objectives.
- Attach one-page resumes for key participating team members as an appendix. Resumes do not count towards the page limit. Multi-page resumes are not allowed.
- Describe the technical services or partnership activities to be provided by National Labs, DOE/NNSA FFRDCs and GOGOs, if applicable.
- Demonstrate the level of commitment from the proposing college or university and the host department. Include commitment letters that show that the Center will have strong administrative support. Commitment letters do not count towards the page limit.
- Attach any letters of support from partners/end users as an appendix (1 page maximum per letter). Letters of support do not count towards the page limit.

iii. Statement of Project Objectives

Applicants are required to complete a Statement of Project Objectives (SOPO). A SOPO template is available on EERE Exchange at https://eere-exchange.energy.gov/. The SOPO, including the Milestone Table, must not

exceed 10 pages when printed using standard 8.5 x 11 paper with 1" margins (top, bottom, left, and right) with font not smaller than 12 point. Save the SOPO in a single Microsoft Word file using the following convention for the title "ControlNumber_LeadOrganization_SOPO". The SOPO should contain the following information:

- Project Objectives: The Applicant should provide a clear and concise (high-level) statement of the goals and objectives of the project as well as the expected outcomes.
- Scope Summary: The Applicant should provide a summary description of the overall work scope and approach to achieve the objective(s). The overall work scope is to be divided by performance periods that are separated by discrete, approximately annual decision points (see below for more information on Go/No-Go decision points). The Applicant should describe the specific expected end result of each performance period.
- o Task Descriptions for the primary activities of the Center to include:
 - Overall project management and other administrative tasks such as establishment of office space, meetings, general training, etc.
 - Training, educational opportunities, other related activities for IAC students
 - Recruitment of clients for industrial assessments and outreach strategy to reach non-participating manufacturers
 - Conduct of industrial assessments
 - Implementation follow-up and plan to maximize implementation of identified opportunities
 - Activities to leverage other EERE and AMO activities such as Better Plants, Superior Energy Performance, renewable energy, cyber security, etc. to support the SMEs served
 - Communications and resource planning for supporting nonparticipating local manufacturers.
 - General task to conduct special projects for DOE such as student led research projects, special training opportunities, etc.
- demonstrate success, where success is defined as technical achievement rather than simply completing a task. All milestones should be SMART (Specific, Measurable, Achievable, Relevant, and Timely) to the extent practical. At least one milestone per quarter for the duration of the project should be proposed.
- o Go/No-Go Decision Points: The Applicant should provide project-wide go/no-go decision points for each 12-month budget period. The Applicant should propose the specific technical criteria to be used to make the go/no-go decision.

iv. SF-424: Application for Federal Assistance

Complete all required fields in accordance with the instructions on the form. The list of certifications and assurances in Field 21 can be found at http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms, under Certifications and Assurances. Note: The dates and dollar amounts on the SF-424 are for the complete project period and not just the first project year, first phase or other subset of the project period. Save the SF-424 in a single PDF file using the following convention for the title "ControlNumber LeadOrganization App424".

v. Budget Justification Workbook (EERE 335)

Applicants are required to complete the Budget Justification Workbook. This form is available on EERE Exchange at https://eere-Exchange.energy.gov/. Prime Recipients must complete each tab of the Budget Justification Workbook for the project as a whole, including all work to be performed by the Prime Recipient and its Subrecipients and Contractors, and provide all requested documentation (e.g., a Federally-approved rate agreement, vendor quotes). Applicants should include costs associated with required annual audits and incurred cost proposals in their proposed budget documents. The "Instructions and Summary" included with the Budget Justification Workbook will auto-populate as the applicant enters information into the Workbook. Applicants must carefully read the "Instructions and Summary" tab provided within the Budget Justification Workbook. Save the Budget Justification Workbook in a single Microsoft Excel file using the following convention for the title "ControlNumber LeadOrganization_Budget_Justification".

vi. Summary/Abstract for Public Release

Applicants are required to submit a one-page summary/abstract of their project. The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (e.g., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information as DOE may make it available to the public after selections are made. The project summary must not exceed 1 page when printed using standard 8.5 x 11 paper with 1" margins (top, bottom, left, and right) with font not smaller than 12 point. Save the Summary for Public Release in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization Summary".

vii.Summary Slide

Applicants are required to provide a single PowerPoint slide summarizing the proposed project. The slide must be submitted in Microsoft PowerPoint format. This slide is used during the evaluation process. Save the Summary Slide in a single file using the following convention for the title "ControlNumber_LeadOrganization_Slide".

The Summary Slide template requires the following information:

- A Program Summary;
- A description of the program's impact;
- Proposed project goals;
- Any key graphics (illustrations, charts and/or tables);
- The project's key idea/takeaway;
- Project title, Prime Recipient, Principal Investigator, and Key Participant information; and
- Requested EERE funds and proposed applicant cost share.

viii. Subaward Budget Justification (EERE 335) (if applicable)

Applicants must provide a separate budget justification, EERE 335 (i.e., budget justification for each budget year and a cumulative budget) for each subawardee that is expected to perform work estimated to be more than \$250,000 or 25 percent of the total work effort (whichever is less). The budget justification must include the same justification information described in the "Budget Justification" section above. Save each subaward budget justification in a Microsoft Excel file using the following convention for the title

"ControlNumber LeadOrganization Subawardee Budget Justification".

ix. Budget for DOE/NNSA FFRDC (if applicable)

If a DOE/NNSA FFRDC contractor is to perform a portion of the work, the applicant must provide a DOE Field Work Proposal (FWP) in accordance with the requirements in DOE Order 412.1, Work Authorization System. DOE Order 412.1 and DOE O 412.1 (Field Work Proposal form) area available at the following link, under "DOE Budget Forms":

https://www.directives.doe.gov/directives/0412.1-BOrder-a/view. Save the FWP in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_FWP".

x. Authorization for non-DOE/NNSA or DOE/NNSA FFRDCs (if applicable)

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 the contractor's authority under its award. Save the Authorization in a single PDF file using the following convention for the title "ControlNumber LeadOrganization FFRDCAuth".

xi. SF-LLL: Disclosure of Lobbying Activities

Prime Recipients and Subrecipients may not use any Federal funds to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters.

Prime Recipients and Subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities"

(http://www.whitehouse.gov/sites/default/files/omb/grants/sflllin.pdf) if any non-Federal funds have been paid or will be paid to any person for influencing or attempting to influence any of the following in connection with your application:

- An officer or employee of any Federal agency;
- A Member of Congress;
- An officer or employee of Congress; or
- An employee of a Member of Congress.

Save the SF-LLL in a single PDF file using the following convention for the title "ControlNumber LeadOrganization SF-LLL".

xii. Waiver Requests: Performance of Work in the United States (if applicable)

1. Performance of Work in the United States

As set forth in Section IV.J.3, all work under EERE funding agreements must be performed in the United States. This requirement does not apply to the purchase of supplies and equipment, so a waiver is not required for foreign purchases of these items. However, the Prime Recipient should make every effort to purchase supplies and equipment within the United States. Appendix C lists the necessary information that must be included in a request to waive the Performance of Work in the United States requirement. Save the waiver in a single PDF file using the following convention for the title

"ControlNumber_LeadOrganization_Waiver".

D. Post-Award Information Requests

If selected for award, EERE reserves the right to request additional or clarifying information for any reason deemed necessary, including but not limited to:

- Indirect cost information
- Other budget information
- Commitment Letters from Third Parties Contributing to Cost Share, if applicable
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5)
- Representation of Limited Rights Data and Restricted Software, if applicable

E. Dun and Bradstreet Universal Numbering System Number and System for Award Management

Each applicant (unless the applicant is an individual or Federal awarding agency that is excepted from those requirements under 2 CFR §25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR §25.110(d)) is required to: (1) Be registered in the System for Award Management (SAM) at https://www.sam.gov before submitting its application; (2) provide a valid Dun and Bradstreet Universal Numbering System (DUNS) number in its application; and (3) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. DOE may not make a Federal award to an applicant until the applicant has complied with all applicable DUNS 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 may 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.

F. Submission Dates and Times

Letters of Intent and Full Applications must be submitted in EERE Exchange no later than 5 p.m. Eastern on the dates provided on the cover page of this FOA.

G. Intergovernmental Review

This FOA is not subject to Executive Order 12372 – Intergovernmental Review of Federal Programs.

H. Funding Restrictions

i. Allowable Costs

All expenditures must be allowable, allocable, and reasonable in accordance with the applicable Federal cost principles.

Refer to the following applicable Federal cost principles for more information:

- FAR Part 31 for For-Profit entities; and
- 2 CFR Part 200 Subpart E Cost Principles for all other non-federal entities.

ii. Pre-Award Costs

Selectees must request prior written approval to charge pre-award costs. Pre-award costs are those incurred prior to the effective date of the Federal award directly pursuant to the negotiation and in anticipation of the Federal award where such costs are necessary for efficient and timely performance of the scope of work. Such costs are allowable only to the extent that they would have been allowable if incurred after the date of the Federal award and **only** with the written approval of the Federal awarding agency, through the Contracting Officer assigned to the award.

Pre-award costs cannot be incurred prior to the Selection Official signing the Selection Statement and Analysis. Pre-award costs can only be incurred if such costs would be reimbursable under the agreement if incurred after award.

Pre-Award expenditures are made at the Selectee's risk; EERE is not obligated to reimburse costs: (1) in the absence of appropriations; (2) if an award is not made; or (3) if an award is made for a lesser amount than the Selectee anticipated.

1. Pre-Award Costs Related to National Environmental Policy Act (NEPA) Requirements

EERE's decision whether and how to distribute Federal funds under this FOA is subject to NEPA. Applicants should carefully consider and should seek legal counsel or other expert advice before taking any action related to the proposed project that would have an adverse effect on the environment or limit the choice of reasonable alternatives prior to EERE completing the NEPA review process.

EERE does not guarantee or assume any obligation to reimburse costs where the Prime Recipient incurred the costs prior to receiving written authorization from the Contracting Officer. If the applicant elects to undertake activities that may have an adverse effect on the environment

or limit the choice of reasonable alternatives prior to receiving such written authorization from the Contracting Officer, the applicant is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share. Likewise, if a project is selected for negotiation of award, and the Prime Recipient elects to undertake activities that are not authorized for Federal funding by the Contracting Officer in advance of EERE completing a NEPA review, the Prime Recipient is doing so at risk of not receiving Federal Funding and such costs may not be recognized as allowable cost share. Nothing contained in the pre-award cost reimbursement regulations or any pre-award costs approval letter from the Contracting Officer override these NEPA requirements to obtain the written authorization from the Contracting Officer prior to taking any action that may have an adverse effect on the environment or limit the choice of reasonable alternatives.

iii. Performance of Work in the United States

1. Requirement

All work performed under EERE Awards must be performed in the United States. This requirement does not apply to the purchase of supplies and equipment; however, the Prime Recipient should make every effort to purchase supplies and equipment within the United States. The Prime Recipient must flow down this requirement to its Subrecipients.

2. Failure to Comply

If the Prime Recipient fails to comply with the Performance of Work in the United States requirement, EERE may deny reimbursement for the work conducted outside the United States and such costs may not be recognized as allowable recipient cost share. The Prime Recipient is responsible should any work under this Award be performed outside the United States, absent a waiver, regardless of if the work is performed by the Prime Recipient, Subrecipients, contractors or other project partners.

3. Waiver

There may be limited circumstances where it is in the interest of the project to perform a portion of the work outside the United States. To seek a waiver of the Performance of Work in the United States requirement, the applicant must submit a written waiver request to EERE. Appendix C lists the necessary information that must be included in a request to waive the Performance of Work in the United States requirement.

The applicant must demonstrate to the satisfaction of EERE that a waiver would further the purposes of the FOA and is in the economic interests of the United States. EERE may require additional information before considering a waiver request. Save the waiver request(s) in a single PDF file titled "ControlNumber_LeadOrganization_Waiver". The applicant does not have the right to appeal EERE's decision concerning a waiver request.

iv. Construction

Recipients are required to obtain written authorization from the Contracting Officer before incurring any major construction costs.

v. Foreign Travel

Foreign travel costs are not allowable under this FOA.

vi. Equipment and Supplies

To the greatest extent practicable, all equipment and products purchased with funds made available under this FOA should be American-made. This requirement does not apply to used or leased equipment.

Property disposition will be required at the end of a project if the current fair market value of property exceeds \$5,000. The rules for property disposition are set forth in 2 CFR 200.310 – 200.316 as amended by 2 CFR 910.360.

vii.Lobbying

Recipients and Subrecipients may not use any Federal funds to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters.

Recipients and Subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities"

(http://www.whitehouse.gov/sites/default/files/omb/grants/sflllin.pdf) if any non-Federal funds have been paid or will be paid to any person for influencing or attempting to influence any of the following in connection with your application:

- An officer or employee of any Federal agency;
- A Member of Congress;
- An officer or employee of Congress; or
- An employee of a Member of Congress.

viii. Risk Assessment

Prior to making a Federal award, the DOE is required by 31 U.S.C. 3321 and 41 U.S.C. 2313 to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information, such as SAM Exclusions and "Do Not Pay."

In addition, DOE evaluates the risk(s) posed by applicants before they receive Federal awards. This evaluation may consider: results of the evaluation of the applicant's eligibility; the quality of the application; financial stability; quality of management systems and ability to meet the management standards prescribed in this part; history of performance; reports and findings from audits; and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

In addition to this review, DOE must comply with the guidelines on government-wide suspension and debarment in 2 CFR 180, and must require non-Federal entities to comply with these provisions. These provisions restrict Federal awards, subawards and contracts with certain parties that are debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities.

V. Application Review Information

A. Technical Review Criteria

i. Full Applications

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

Criterion 1: IAC Operations Approach

- Effectiveness and quality of the organizational model, operation plan, proposed tasks and organizational structure to achieve IAC objectives.
- Demonstrated understanding of, experience with, and ability to implement IAC Program goals and established guidelines/protocols.
- Strength and thoroughness of proposed means to develop technical and communications means to provide resources and solutions to participating and non-participating SMEs.
- Quality and extent of plans to incorporate smart manufacturing, cyber security, and wastewater and water-energy relationships, and energy management system standards, such as ISO50001 and Superior Energy Performance, into assessments performed by the center.

Weight: [30%]



- Demonstrated understanding of the health and safety requirements for faculty and students on industrial assessments.
- Quality of plan to integrate Satellite Centers or other configurations into the Main Centers operations (if applicable).
- Completeness and reasonableness of the proposed Statement of Project Objectives (SOPO).

Criterion 2: Student Staffing, Training and Integration with University Curriculum

Weight: [25%]

- Quality of plan for student staffing and utilization that emphasizes a
 comprehensive student training program including: assessment experience,
 training in tools and other resources related to industrial energy systems,
 professional exposure and relevant coursework. Plan should describe a
 process to ensure that graduating IAC students achieve a measurable level of
 competency in all or most of the areas noted above, and how competency
 will be measured.
- Quality and reasonableness of plan to provide enhanced student training and experience, including discussion of feasibility and demonstration of committed partnerships that may include internships/co-ops for students with partners.
- Quality of plan to provide opportunities for student participation in training/certification programs offered by national laboratories or industrial organizations, including ISO 50001 and Superior Energy Performance.
- Quality of plan for curriculum development to meet the scientific and technical training needs of the Industrial Assessment Center program and inclusion of other disciplines (e.g., business, marketing, environmental studies etc.) into training and student employee makeup.
- Effectiveness to engage current and past students in a social media resource to advance the network of the IAC program and link to the national alumni efforts to keep IAC students and alumni connected.
- Quality of plans promote the development or enhancement of an accredited bachelor's degree in energy-related engineering.

Criterion 3: Collaborations and Industrial Demographics Weight: [25%]

- Demonstrated ability to form partnerships and create synergistic efforts in the region that enhance the SME and student experience, particularly with utilities and industrial companies.
- Ability to leverage partnerships to bring direct resources including IAC support, scholarships, co-op, internships, incentive dollars, additional services, and implementation support and other forms of support.



- Strength and effectiveness of the partnering organizations to expand the reach of the IAC program as well as lead to increased effectiveness to both participating and non-participating SMEs.
- Level of industrial concentration to warrant IAC establishment within the applicant's region and understanding of regional industrial base.
- Knowledge of key stakeholders and current challenges related to industrial
 energy efficiency in applicant's demographic region and familiarity with
 factors involving the implementation of energy efficiency recommendations,
 productivity improvements, cyber security, wastewater and water-energy
 relationships, and new technology adoption.

Criterion 4: Technical Qualifications, Resources and Commitment Weight: [20%]

- Qualifications of proposed faculty and staff, including past experience assessing industrial facilities, providing student training in energy related matters, and active integration with university curriculum (i.e. teaching faculty).
- Appropriate roles and responsibilities of all key staff and proposed time/workload commitment to the project including performance of assessments.
- Quality of performance metrics and reporting requirements to ensure ability to measure and share data on workforce development and results of energy audits
- Extent of previous efforts and demonstrated collaborations with industry, and other relevant activities, to achieve the project objectives.
- Adequacy of facilities, equipment, and other resources to accommodate the proposed center.
- Level of commitment from the proposing college or university and the
 host department, such as commitment letters, that a center will have
 strong administrative support as well as support from other departments,
 potentially including business, marketing, communications, IT, and other
 areas.

B. Standards for Application Evaluation

Applications that are determined to be eligible will be evaluated in accordance with this FOA, by the standards set forth in EERE's Notice of Objective Merit Review Procedure (76 Fed. Reg. 17846, March 31, 2011) and the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance," which is available at: http://energy.gov/sites/prod/files/meritrev.pdf.

C. Other Selection Factors

i. Program Policy Factors



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

- Past performance of a currently active Industrial Assessment Center with regards to completion of assessments per the approved workplan, quality of assessment impacts and student metrics
- Industrial demographics/geographic diversity (client base and proximity to other Centers) to ensure appropriate services to all regions of the Unites States
- Involvement of Minority-serving institutions as either Prime Applicants or as Satellite or Support centers
- Overall innovation the Applicant will demonstrate in center operations, program structure, and workforce development

D. Evaluation and Selection Process

i. Overview

The evaluation process consists of multiple phases; each includes an initial eligibility review and a thorough technical review. Rigorous technical reviews of eligible submissions 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, in determining which applications to select.

ii. Pre-Selection Interviews

As part of the evaluation and selection process, EERE may invite one or more applicants to participate in Pre-Selection Interviews. Pre-Selection Interviews are distinct from and more formal than pre-selection clarifications (See Section V.D.3 of the FOA). The invited applicant(s) will meet with EERE representatives to provide clarification on the contents of the Full Applications and to provide EERE an opportunity to ask questions regarding the proposed project. The information provided by applicants to EERE through Pre-Selection Interviews contributes to EERE's selection decisions.

EERE will arrange to meet with the invited applicants in person at EERE's offices or a mutually agreed upon location. EERE may also arrange site visits at certain applicants' facilities. In the alternative, EERE may invite certain applicants to participate in a one-on-one conference with EERE via webinar, videoconference, or conference call.

EERE will not reimburse applicants for travel and other expenses relating to the Pre-Selection Interviews, nor will these costs be eligible for reimbursement as pre-award costs.

EERE may obtain additional information through Pre-Selection Interviews that will be used to make a final selection determination. EERE may select applications for funding and make awards without Pre-Selection Interviews. Participation in Pre-Selection Interviews with EERE does not signify that applicants have been selected for award negotiations.

iii. Pre-Selection Clarification

EERE may determine that pre-selection clarifications 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, and will be limited to information already provided in the application documentation. The preselection clarifications may occur before, during or after the merit review evaluation process. Information provided by an applicant that is not necessary to address the pre-selection clarification question will not be reviewed or considered. Typically, a pre-selection clarification will be carried out through either written responses to EERE's written clarification questions or video or conference calls with EERE representatives.

The information provided by applicants to EERE through pre-selection clarifications is incorporated in their applications and contributes to the merit review evaluation and EERE's selection decisions. If EERE contacts an applicant for pre-selection clarification purposes, it does not signify that the applicant has been selected for negotiation of award or that the applicant is among the top ranked applications.

EERE will not reimburse applicants for expenses relating to the pre-selection clarifications, nor will these costs be eligible for reimbursement as pre-award costs.

iv. Recipient Integrity and Performance Matters

DOE, prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold, is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. 2313).

The applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM.

DOE will consider any written comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 C.F.R. § 200.205.

v. Selection

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

E. Anticipated Notice of Selection and Award Dates

EERE anticipates notifying applicants selected for negotiation of award by Summer 2016 and making awards by Fall 2016.

VI. Award Administration Information

A. Award Notices

i. Ineligible Submissions

Ineligible Full Applications will not be further reviewed or considered for award. The Contracting Officer will send a notification letter by email to the technical and administrative points of contact designated by the applicant in EERE Exchange. The notification letter will state the basis upon which the Full Application is ineligible and not considered for further review.

ii. Full Application Notifications

EERE will notify applicants of its determination via a notification letter by email to the technical and administrative points of contact designated by the applicant in EERE Exchange. The notification letter will inform the applicant whether or not its Full Application was selected for award negotiations. Alternatively, EERE may notify one or more applicants that a final selection determination on particular Full Applications will be made at a later date, subject to the availability of funds or other factors.

iii. Successful Applicants

Receipt of a notification letter selecting a Full Application for award negotiations does not authorize the applicant to commence performance of the project. If an application is selected for award negotiations, it is not a commitment by EERE to issue an award. Applicants do not receive an award until award negotiations are complete and the Contracting Officer executes the funding agreement, accessible by the Prime Recipient in FedConnect.

The award negotiation process will take approximately 60 days. Applicants must designate a primary and a backup point-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations. The

applicant must be responsive during award negotiations (i.e., provide requested documentation) and meet the negotiation deadlines. If the applicant fails to do so or if award negotiations are otherwise unsuccessful, EERE will cancel the award negotiations and rescind the Selection. EERE reserves the right to terminate award negotiations at any time for any reason.

Please refer to Section IV.J.2 of the FOA for guidance on pre-award costs.

iv. Alternate Selection Determinations

In some instances, an applicant may receive a notification that its application was not selected for award and EERE designated the application to be an alternate. As an alternate, EERE may consider the Full Application for Federal funding in the future. A notification letter stating the Full Application is designated as an alternate does not authorize the applicant to commence performance of the project. EERE may ultimately determine to select or not select the Full Application for award negotiations.

v. Unsuccessful Applicants

EERE shall promptly notify in writing each applicant whose application has not been selected for award or whose application cannot be funded because of the unavailability of appropriated funds.

B. Administrative and National Policy Requirements

i. 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. These requirements are as follows:

1. EERE Exchange

Register and create an account on EERE Exchange at https://eere-exchange.energy.gov.

This account will then allow the user to register for any open EERE FOAs that are currently in EERE Exchange. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission. Applicants should also designate backup points of contact so they may be easily

contacted if deemed necessary. <u>This step is required to apply to this FOA.</u>

The EERE Exchange registration does not have a delay; however, <u>the</u> remaining registration requirements below could take several weeks to process and are necessary for a potential applicant to receive an award under this FOA.

2. DUNS Number

Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at http://fedgov.dnb.com/webform.

3. System for Award Management

Register with the System for Award Management (SAM) at https://www.sam.gov. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually.

4. FedConnect

Register in FedConnect at https://www.fedconnect.net. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at http://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf.

5. Grants.gov

Register in Grants.gov (http://www.grants.gov) to receive automatic updates when Amendments to this FOA are posted. However, please note that Letters of Intent and Full Applications will not be accepted through Grants.gov.

6. Electronic Authorization of Applications and Award Documents Submission of an application and supplemental information under this FOA through electronic systems used by the Department of Energy, including EERE Exchange and FedConnect.net, constitutes the authorized representative's approval and electronic signature.



ii. Award Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 2 CFR Part 200 as amended by 2 CFR Part 910.

iii. Foreign National Access to DOE Sites

All applicants that ultimately enter into an award resulting from this FOA will be subject to the following requirement concerning foreign national involvement. Upon DOE's request, Prime Recipients must provide information to facilitate DOE's responsibilities associated with foreign national access to DOE sites, information, technologies, and equipment. A foreign national is defined as any person who was born outside the jurisdiction of the United States, is a citizen of a foreign government, and has not been naturalized under U.S. law. If the Prime Recipient or Subrecipients, contractors or vendors under the award, anticipate utilizing a foreign national person in the performance of an award, the Prime Recipient is responsible for providing to the Contracting Officer specific information of the foreign national(s) to satisfy compliance with all of the requirements for access approval.

iv. Subaward and Executive Reporting

Additional administrative requirements necessary for DOE grants and cooperative agreements to comply with the Federal Funding and Transparency Act of 2006 (FFATA) are contained in 2 CFR Part 170. Prime Recipients must register with the new FFATA Subaward Reporting System database and report the required data on their first tier Subrecipients. Prime Recipients must report the executive compensation for their own executives as part of their registration profile in SAM.

v. National Policy Requirements

The National Policy Assurances that are incorporated as a term and condition of award are located at: http://www.nsf.gov/awards/managing/rtc.jsp.

vi. Environmental Review in Accordance with National Environmental Policy Act (NEPA)

EERE's decision whether and how to distribute federal funds under this FOA is subject to the National Environmental Policy Act (42 USC 4321, et seq.). NEPA requires Federal agencies to integrate environmental values into their decision-making processes by considering the potential environmental impacts of their proposed actions. For additional background on NEPA, please see DOE's NEPA website, at http://nepa.energy.gov/.

While NEPA compliance is a Federal agency responsibility and the ultimate decisions remain with the Federal agency, all recipients selected for an award will be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to their proposed project. If DOE determines certain records must be prepared to complete the NEPA review process (e.g., biological evaluations or environmental assessments), the costs to prepare the necessary records may be included as part of the project costs.

vii. Applicant Representations and Certifications

1. Lobbying Restrictions

By accepting funds under this award, the Prime Recipient agrees that none of the funds obligated on the award shall be expended, directly or indirectly, to influence Congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. §1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

- 2. Corporate Felony Conviction and Federal Tax Liability Representations In submitting an application in response to this FOA, the applicant represents that:
 - a. It is **not** a corporation that has been convicted of a felony criminal violation under any Federal law within the preceding 24 months, and
 - b. It is **not** a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

For purposes of these representations the following definitions apply:

A Corporation includes any entity that has filed articles of incorporation in any of the 50 states, the District of Columbia, or the various territories of the United States [but not foreign corporations]. It includes both forprofit and non-profit organizations.

- **3.** Nondisclosure and Confidentiality Agreements Representations In submitting an application in response to this FOA the applicant represents that:
 - a. It does not and will not require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise restricting its employees or contactors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.
 - b. It does not and will not use any Federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:
 - (1) "These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling."
 - (2) The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.
 - (3) Notwithstanding the provision listed in paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the

conduct of an intelligence or intelligence-related activity, other than an employee or officer of the United States Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States Government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

viii. Statement of Federal Stewardship

EERE will exercise normal Federal stewardship in overseeing the project activities performed under EERE Awards. Stewardship Activities include, but are not limited to, conducting site visits; reviewing performance and financial reports, providing assistance and/or temporary intervention in usual circumstances to correct deficiencies that develop during the project; assuring compliance with terms and conditions; and reviewing technical performance after project completion to ensure that the project objectives have been accomplished.

ix. Statement of Substantial Involvement

EERE has substantial involvement in work performed under Awards made as a result of 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(s).

- 4. EERE participates in major project decision-making processes.
- 5. In order to ensure consistency and uniformity of operations across the U.S., DOE will collaborate with each entity in the program, and also foster collaboration and coordination between all entities. DOE also provides additional monitoring to permit specified kinds of direction or redirection of each entity's work due to interrelationships between projects and/or critical programmatic goals.

x. Intellectual Property Provisions

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://www1.eere.energy.gov/financing/resources.html.

xi. Reporting

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. The checklist can be accessed at http://www1.eere.energy.gov/financing/resources.html.

xii.Go/No-Go Review

Each project selected under this FOA will be subject to a periodic project evaluation referred to as a Go/No-Go Review. Federal funding beyond the Go/No Go decision point (continuation funding), is contingent on (1) the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority; (2) meeting the objectives, milestones, deliverables, and decision point criteria of recipient's approved project and obtaining approval from EERE to continue work on the project; and (3) the submittal of required reports in accordance with the Statement of Project Objectives.

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, EERE may take appropriate action, including but not limited to, redirecting, suspending or terminating the award.

xiii. Conference Spending

The recipient shall not expend <u>any</u> funds on a conference not directly and programmatically related to the purpose for which the grant or cooperative agreement was awarded that would defray the cost to the United States Government of a conference held by any Executive branch department, agency, board, commission, or office for which the cost to the United States Government would otherwise exceed \$20,000, thereby circumventing the required notification by the head of any such Executive Branch department, agency, board, commission, or office to the Inspector General (or senior ethics official for any entity without an Inspector General), of the date, location, and number of employees attending such conference.

VII. Questions/Agency Contacts

Upon the issuance of a FOA, EERE personnel are prohibited from communicating (in writing or otherwise) with applicants regarding the FOA except through the established question and answer process as described below. Specifically, questions regarding the content of this FOA must be submitted to: IACs@ee.doe.gov. Questions must be submitted not later than 3 business days prior to the application due date and time.

All questions and answers related to this FOA will be posted on EERE Exchange at: https://eere-exchange.energy.gov. Please note that you must first select this specific FOA Number in order to view the questions and answers specific to this FOA. EERE will attempt to respond to a question within 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 EERE Exchange website should be submitted to: EERE-ExchangeSupport@hq.doe.gov.

VIII. Other Information

A. FOA Modifications

Amendments to this FOA will be posted on the EERE Exchange website and the Grants.gov system. However, you will only receive an email when an amendment or a FOA is posted on these sites if you register for email notifications for this FOA in Grants.gov. EERE recommends that you register as soon after the release of the



FOA as possible to ensure you receive timely notice of any amendments or other FOAs.

B. Informational Webinar

EERE will conduct one informational webinar during the FOA process. It will be held after the initial FOA release.

Attendance is not mandatory and will not positively or negatively impact the overall review of any applicant submissions. As the webinar will be open to all applicants who wish to participate, applicants should refrain from asking questions or communicating information that would reveal confidential and/or proprietary information specific to their project. Specific dates for the webinar can be found on the cover page of the FOA.

C. Government Right to Reject or Negotiate

EERE reserves the right, without qualification, to reject any or all applications received in response to this FOA and to select any application, in whole or in part, as a basis for negotiation and/or award.

D. Commitment of Public Funds

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by anyone other than the Contracting Officer, either express or implied, is invalid.

E. Treatment of Application Information

In general, EERE will only use data and other information contained in applications for evaluation purposes, unless such information is generally available to the public or is already the property of the Government.

Applicants should not include trade secrets or commercial or financial information that is privileged or confidential in their application unless such information is necessary to convey an understanding of the proposed project or to comply with a requirement in the FOA.

The use of protective markings such as "Do Not Publicly Release – Trade Secret" or "Do Not Publicly Release – Confidential Business Information" is encouraged. However, applicants should be aware that the use of protective markings is not dispositive as to whether information will be publicly released pursuant to the Freedom of Information Act, 5 U.S.C. §552, et. seq.. as amended by the OPEN Government Act of 2007, Pub. L. No. 110-175. (See Section I of this document, "Notice of Potential Disclosure Under the Freedom of Information Act (FOIA)" for



additional information regarding the public release of information under the Freedom of Information Act.

Applicants are encouraged to employ protective markings in the following manner: The cover sheet of the application must be marked as follows and identify the specific pages containing trade secrets or commercial or financial information that is privileged or confidential:

Notice of Restriction on Disclosure and Use of Data:

Pages [list applicable pages] of this document may contain trade secrets or commercial or financial information that is privileged or confidential, and is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan 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]

The header and footer of every page that contains trade secrets or commercial or financial information that is privileged must be marked as follows: "May contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure."

In addition, each line or paragraph containing trade secrets or commercial or financial information that is privileged or confidential must be enclosed in brackets.

F. Evaluation and Administration by Non-Federal Personnel

In conducting the merit review evaluation, the Go/No-Go Review and Peer Review, the Government may seek the advice of qualified non Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application. Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

G. Notice Regarding Eligible/Ineligible Activities

Eligible activities under this FOA include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not those which encourage or support political activities such as the collection



and dissemination of information related to potential, planned or pending legislation.

H. Notice of Right to Conduct a Review of Financial Capability

EERE reserves the right to conduct an independent third party review of financial capability for applicants that are selected for negotiation of award (including personal credit information of principal(s) of a small business if there is insufficient information to determine financial capability of the organization).

I. Notice of Potential Disclosure Under Freedom of Information Act (FOIA)

Under the Freedom of Information Act, (FOIA), 5 U.S.C. §552, et. seq., as amended by the OPEN Government Act of 2007, Pub. L. No. 110-175, any information received from the Applicant is considered to be an agency record, and as such, subject to public release under FOIA. The purpose of the FOIA is to afford the public the right to request and receive agency records unless those agency records are protected from disclosure under one or more of the nine FOIA exemptions. Decisions to disclose or withhold information received from the Applicant are based upon the applicability of one or more of the nine FOIA exemptions, not on the existence or nonexistence of protective markings or designations. Only the agency's designated FOIA Officer may determine if information received from the Applicant may be withheld pursuant to one of the nine FOIA exemptions. All FOIA requests received by DOE are processed in accordance with 10 C.F.R. Part 1004.

J. Requirement for Full and Complete Disclosure

Applicants are required to make a full and complete disclosure of all information requested. Any failure to make a full and complete disclosure of the requested information may result in:

- The termination of award negotiations;
- The modification, suspension, and/or termination of a funding agreement;
- The initiation of debarment proceedings, debarment, and/or a declaration of ineligibility for receipt of Federal contracts, subcontracts, and financial assistance and benefits; and
- Civil and/or criminal penalties.

K. Retention of Submissions

EERE expects to retain copies of all Letters of Intent, Full Applications and other submissions. No submissions will be returned. By applying to EERE for funding, applicants consent to EERE's retention of their submissions.

L. Title to Subject Inventions

Ownership of subject inventions is governed pursuant to the authorities listed below.

- Domestic Small Businesses, Educational Institutions, and Nonprofits: Under the Bayh-Dole Act (35 U.S.C. § 200 et seq.), domestic small businesses, educational institutions, and nonprofits may elect to retain title to their subject inventions.
- All other parties: The Federal Non-Nuclear Energy Act of 1974, 42. U.S.C.
 5908, provides that the Government obtains title to new inventions unless a waiver is granted (see below).
- Advance and Identified Waivers: Applicants may request a patent waiver that will cover subject inventions that may be invented under the award, in advance of or within 30 days after the effective date of the award. Even if an advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver for identified inventions, i.e., individual subject inventions that are disclosed to EERE within the timeframes set forth in the award's intellectual property terms and conditions. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784.

M. Government Rights in Subject Inventions

Where Prime Recipients and Subrecipients retain title to subject inventions, the U.S. Government retains certain rights.

i. Government Use License

The U.S. Government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any subject invention throughout the world. This license extends to contractors doing work on behalf of the Government.

ii. March-In Rights

The U.S. Government retains march-in rights with respect to all subject inventions. Through "march-in rights," the Government may require a Prime Recipient or Subrecipient who has elected to retain title to a subject invention (or their assignees or exclusive licensees), to grant a license for use of the invention to a third party. In addition, the Government may grant licenses for use of the subject invention when a Prime Recipient, Subrecipient, or their assignees and exclusive licensees refuse to do so.

DOE may exercise its march-in rights only if it determines that such action is necessary under any of the four following conditions:

- The owner or licensee has not taken or is not expected to take effective steps to achieve practical application of the invention within a reasonable time;
- The owner or licensee has not taken action to alleviate health or safety needs in a reasonably satisfied manner;
- The owner has not met public use requirements specified by Federal statutes in a reasonably satisfied manner; or
- The U.S. Manufacturing requirement has not been met.

Any determination that march-in rights are warranted must follow a fact-finding process in which the recipient has certain rights to present evidence and witnesses, confront witnesses and appear with counsel and appeal any adverse decision. To date, DOE has never exercised its march-in rights to any subject inventions.

N. 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 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.

O. Copyright

The Prime Recipient and Subrecipients may assert copyright in copyrightable works, such as software, first produced under the award without EERE approval. When copyright is asserted, the Government retains a paid-up nonexclusive, irrevocable worldwide license to reproduce, prepare derivative works, distribute

copies to the public, and to perform publicly and display publicly the copyrighted work. This license extends to contractors and others doing work on behalf of the Government.

P. Personally Identifiable Information (PII)

All information provided by the Applicant must to the greatest extent possible exclude Personally Identifiable Information (PII). The term "personally identifiable information" refers to information which can be used to distinguish or trace an individual's identity, such as their name, social security number, biometric records, etc. alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, mother's maiden name, etc. (See OMB Memordum M-07-16 dated May 22, 2007, found at:

https://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2007/m07-16.pdf

By way of example, Applicants must screen resumes to ensure that they do not contain PII such as personal addresses, phone/cell numbers, personal emails and/or SSNs. In short, if the PII is not essential to the application, it should not be in the application.

Q. Annual Compliance Audits

If a for-profit entity is a Prime Recipient and has expended \$750,000 or more of DOE funds during the entity's fiscal year, an annual compliance audit performed by an independent auditor is be required. For additional information, please refer to 2 C.F.R. § 910.501 and Subpart F.

If an educational institution, non-profit organization, or state/local government is a Prime Recipient or Subrecipient and has expended \$750,000 or more of Federal funds during the non-Federal entity's fiscal year, then a single or program-specific audit is required. For additional information, please refer to 2 C.F.R. § 200.501 and Subpart F.

Applicants and sub-recipients (if applicable) should propose sufficient costs in the project budget to cover the costs associated with the audit. EERE will share in the cost of the audit at its applicable cost share ratio.



Appendix A – Cost Share Information

Cost Sharing or Cost Matching

The terms "cost sharing" and "cost matching" are often used synonymously. Even the DOE Financial Assistance Regulations, 2 CFR 200.306, use both of the terms in the titles specific to regulations applicable to cost sharing. EERE almost always uses the term "cost sharing," as it conveys the concept that non-federal share is calculated as a percentage of the Total Project Cost. An exception is the State Energy Program Regulation, 10 CFR 420.12, State Matching Contribution. Here "cost matching" for the non-federal share is calculated as a percentage of the Federal funds only, rather than the Total Project Cost.

How Cost Sharing Is Calculated

As stated above, cost sharing is calculated as a percentage of the Total Project Cost. FFRDC costs must be included in Total Project Costs. Following is an example of how to calculate cost sharing amounts for a project with \$1,000,000 in federal funds with a minimum 20% non-federal cost sharing requirement:

- Formula: Federal share (\$) divided by Federal share (%) = Total Project Cost Example: \$1,000,000 divided by 80% = \$1,250,000
- Formula: Total Project Cost (\$) minus Federal share (\$) = Non-federal share (\$)
 Example: \$1,250,000 minus \$1,000,000 = \$250,000
- Formula: Non-federal share (\$) divided by Total Project Cost (\$) = Non-federal share (%)
 Example: \$250,000 divided by \$1,250,000 = 20%

What Qualifies For Cost Sharing

While it is not possible to explain what specifically qualifies for cost sharing in one or even a couple of sentences, in general, if a cost is allowable under the cost principles applicable to the organization incurring the cost and is eligible for reimbursement under an EERE grant or cooperative agreement, then it is allowable as cost share. Conversely, if the cost is not allowable under the cost principles and not eligible for reimbursement, then it is not allowable as cost share. In addition, costs may not be counted as cost share if they are paid by the Federal Government under another award unless authorized by Federal statute to be used for cost sharing.



The rules associated with what is allowable as cost share are specific to the type of organization that is receiving funds under the grant or cooperative agreement, though are generally the same for all types of entities. The specific rules applicable to:

- FAR Part 31 for For-Profit entities, (48 CFR Part 31); and
- 2 CFR Part 200 Subpart E Cost Principles for all other non-federal entities.

In addition to the regulations referenced above, other factors may also come into play such as timing of donations and length of the project period. For example, the value of ten years of donated maintenance on a project that has a project period of five years would not be fully allowable as cost share. Only the value for the five years of donated maintenance that corresponds to the project period is allowable and may be counted as cost share.

Additionally, EERE generally does not allow pre-award costs for either cost share or reimbursement when these costs precede the signing of the appropriation bill that funds the award. In the case of a competitive award, EERE generally does not allow pre-award costs prior to the signing of the Selection Statement by the EERE Selection Official.

DOE Financial Assistance Rules 2 CFR Part 200 as amended by 2 CFR Part 910

As stated above, the rules associated with what is allowable cost share are generally the same for all types of organizations. Following are the rules found to be common, but again, the specifics are contained in the regulations and cost principles specific to the type of entity:

- (A) Acceptable contributions. All contributions, including cash contributions and third party in-kind contributions, must be accepted as part of the Prime Recipient's cost sharing if such contributions meet all of the following criteria:
 - (1) They are verifiable from the recipient's records.
 - (2) They are not included as contributions for any other federally-assisted project or program.
 - (3) They are necessary and reasonable for the proper and efficient accomplishment of project or program objectives.
 - (4) They are allowable under the cost principles applicable to the type of entity incurring the cost as follows:
 - a. For-profit organizations. Allowability of costs incurred by for-profit organizations and those nonprofit organizations listed in Attachment C to OMB Circular A–122 is determined in accordance with the for-profit cost principles in 48 CFR Part 31



in the Federal Acquisition Regulation, except that patent prosecution costs are not allowable unless specifically authorized in the award document. (v) Commercial Organizations. FAR Subpart 31.2—Contracts with Commercial Organizations

- b. Other types of organizations. For all other non-federal entities, allowability of costs is determined in accordance with 2 CFR Part 200 Subpart E.
- (5) They are not paid by the Federal Government under another award unless authorized by Federal statute to be used for cost sharing or matching.
- (6) They are provided for in the approved budget.
- (B) Valuing and documenting contributions
 - (1) Valuing recipient's property or services of recipient's employees. Values are established in accordance with the applicable cost principles, which mean that amounts chargeable to the project are determined on the basis of costs incurred. For real property or equipment used on the project, the cost principles authorize depreciation or use charges. The full value of the item may be applied when the item will be consumed in the performance of the award or fully depreciated by the end of the award. In cases where the full value of a donated capital asset is to be applied as cost sharing or matching, that full value must be the lesser or the following:
 - a. The certified value of the remaining life of the property recorded in the recipient's accounting records at the time of donation; or
 - b. The current fair market value. If there is sufficient justification, the Contracting Officer may approve the use of the current fair market value of the donated property, even if it exceeds the certified value at the time of donation to the project. The Contracting Officer may accept the use of any reasonable basis for determining the fair market value of the property.
 - (2) Valuing services of others' employees. If an employer other than the recipient furnishes the services of an employee, those services are valued at the employee's regular rate of pay, provided these services are for the same skill level for which the employee is normally paid.
 - (3) Valuing volunteer services. Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as cost sharing or matching if the service is an integral and necessary part of an approved project or program. Rates for volunteer services must be consistent with those paid for similar work in the recipient's organization. In those markets in



which the required skills are not found in the recipient organization, rates must be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

- (4) Valuing property donated by third parties.
 - a. Donated supplies may include such items as office supplies or laboratory supplies. Value assessed to donated supplies included in the cost sharing or matching share must be reasonable and must not exceed the fair market value of the property at the time of the donation.
 - b. Normally only depreciation or use charges for equipment and buildings may be applied. However, the fair rental charges for land and the full value of equipment or other capital assets may be allowed, when they will be consumed in the performance of the award or fully depreciated by the end of the award, provided that the Contracting Officer has approved the charges. When use charges are applied, values must be determined in accordance with the usual accounting policies of the recipient, with the following qualifications:
 - The value of donated space must not exceed the fair rental value of comparable space as established by an independent appraisal of comparable space and facilities in a privately-owned building in the same locality.
 - ii. The value of loaned equipment must not exceed its fair rental value.
- (5) Documentation. The following requirements pertain to the recipient's supporting records for in-kind contributions from third parties:
 - a. Volunteer services must be documented and, to the extent feasible, supported by the same methods used by the recipient for its own employees.
 - b. The basis for determining the valuation for personal services and property must be documented.

Appendix B – Sample Cost Share Calculation for Blended Cost Share Percentage

The following example shows the math for calculating required cost share for a project with \$2,000,000 in Federal funds with four tasks requiring different Non-federal cost share percentages:

Task	Proposed Federal	Federal Share %	Recipient Share %	
	Share			
Task 1 (R&D)	\$1,000,000	80%	20%	
Task 2 (R&D)	\$500,000	80%	20%	
Task 3 (Demonstration)	\$400,000	50%	50%	
Task 4 (Outreach)	\$100,000	100%	0%	

Federal share (\$) divided by Federal share (%) = Task Cost

Each task must be calculated individually as follows:

Task 1

\$1,000,000 divided by 80% = \$1,250,000 (Task 1 Cost) Task 1 Cost minus federal share = Non-federal share \$1,250,000 - \$1,000,000 = \$250,000 (Non-federal share)

Task 2

\$500,000 divided 80% = \$625,000 (Task 2 Cost)

Task 2 Cost minus federal share = Non-federal share

\$625,000 - \$500,000 = \$125,000 (Non-federal share)

Task 3

\$400,000 / 50% = \$800,000 (Task 3 Cost)
Task 3 Cost minus federal share = Non-federal share
\$800,000 - \$400,000 = \$400,000 (Non-federal share)

Task 4

Federal share = \$100,000

Non-federal cost share is not mandated for outreach = \$0 (Non-federal share)



The calculation may then be completed as follows:

Tasks	\$ Federal	% Federal	\$ Non-Federal	% Non-Federal	Total Project
	Share	Share	Share	Share	Cost
Task 1	\$1,000,000	80%	\$250,000	20%	\$1,250,000
Task 2	\$500,000	80%	\$125,000	20%	\$625,000
Task 3	\$400,000	50%	\$400,000	50%	\$800,000
Task 4	\$100,000	100%	\$0	0%	\$100,000
Totals	\$2,000,000		\$775,000		\$2,775,000

Blended Cost Share %

Non-federal share (\$775,000) divided by Total Project Cost (\$2,775,000) = 27.9% (Non-federal) Federal share (\$2,000,000) divided by Total Project Cost (\$2,775,000) = 72.1% (Federal)

Appendix C – Waiver Requests: Performance of Work in the United States

1. Waiver for Performance of Work in the United States

As set forth in Section IV.J.3, all work under EERE funding agreements must be performed in the United States. This requirement does not apply to the purchase of supplies and equipment, so a waiver is not required for foreign purchases of these items. However, the Prime Recipient should make every effort to purchase supplies and equipment within the United States. There may be limited circumstances where it is in the interest of the project to perform a portion of the work outside the United States. To seek a waiver of the Performance of Work in the United States requirement, the applicant must submit an explicit waiver request in the Full Application. A separate waiver request must be submitted for each entity proposing performance of work outside of the United States.

Overall, a waiver request must demonstrate to the satisfaction of EERE that it would further the purposes of this FOA and is otherwise in the economic interests of the United States to perform work outside of the United States. A request to waive the *Performance of Work in the United States* requirement must include the following:

- The rationale for performing the work outside the U.S. ("foreign work");
- A description of the work proposed to be performed outside the U.S.;
- An explanation as to how the foreign work is essential to the project;
- A description of the anticipated benefits to be realized by the proposed foreign work and the anticipated contributions to the US economy;
 - The associated benefits to be realized and the contribution to the project from the foreign work;
 - How the foreign work will benefit U.S. research, development and manufacturing, including contributions to employment in the U.S. and growth in new markets and jobs in the U.S.;
 - How the foreign work will promote domestic American manufacturing of products and/or services;
- A description of the likelihood of Intellectual Property (IP) being created from the foreign work and the treatment of any such IP;
- The total estimated cost (DOE and Recipient cost share) of the proposed foreign work;
- The countries in which the foreign work is proposed to be performed; and
- The name of the entity that would perform the foreign work.

EERE may require additional information before considering the waiver request. The applicant does not have the right to appeal EERE's decision concerning a waiver request.