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

Extending Industrial Assessment Centers to Underserved Areas

IACExtension@ee.doe.gov

FOA Webinar

DE-FOA-0001704

1/19/2017

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Extending Industrial Assessment Centers to Underserved Areas

Anticipated Schedule:

FOA Issue Date:	**1/12/2017**
Submission Deadline for Letter of Intent:	2/8/17 5:00pm ET
FOA Informational Webinar:	1/19/17 12:00pm ET
Submission Deadline for Full Applications:	3/14/17 5:00pm ET
Expected Date for EERE Selection Notifications:	May 2017
Expected Timeframe for Award Negotiations:	May – August 2017

Notice

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement DE-FOA-0001704 **("FOA")** and adhere to the stated submission requirements.
- This presentation summarizes the contents of FOA. If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the controlling document and applicants should rely on the FOA language and seek clarification from EERE.
- If you believe there is an inconsistency, please contact IACExtension@ee.doe.gov.

Agenda

1) FOA Description
2) Topic Areas/Technical Areas of Interest
3) Award Information
4) Statement of Substantial Involvement
5) Cost Sharing
6) Pre-Selection Interviews
7) Letters of Intent
8) Full Applications
9) Merit Review and Selection Process
10) Registration Requirements

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

Introduction

The Industrial Assessment Center (IAC) program is a manufacturing efficiency and workforce development initiative of the Advanced Manufacturing Office (AMO) based in the engineering departments of colleges nationwide. IACs conduct assessments and provide site-specific recommendations to small & medium size manufacturers on opportunities to improve productivity, reduce waste and save energy.

The IACs were moved to the Department of Energy just after the DOE was formed in 1978 and later expanded the scope of the assessments to include evaluations of ineffective production procedures, excess waste production and other production-related problems. Currently the IAC program is administered through the Advanced Manufacturing Office under the Office of Energy Efficiency and Renewable Energy at the Department of Energy.

Focus of IAC Extension Centers

Extension IACs are intended to provide better national coverage by further expanding the geographic coverage of the IAC program to areas that are unlikely to be adequately serviced because of their distance from the 28 existing IACs. EERE has identified six geographic gaps in national coverage that have been designated as "underserved" and are listed in Section III, Eligibility Information, of this FOA. For this FOA, EERE is only interested in receiving applications from colleges physically located within one of the following six underserved areas to provide IAC services in the same underserved area:

- Eastern Great Lakes – Michigan and Northern Ohio
- New York Tri-State Region – New Jersey, New York City, Long Island and Connecticut
- Delmarva – Delaware, Maryland and Virginia
- Upper New England – Maine, Vermont and New Hampshire
- Upper Midwest – Minnesota, Upper Michigan and Wisconsin, North and South Dakota
- Mountain West – New Mexico, Colorado, Wyoming and Montana

Objectives – Educational Development

Extension IACs will provide 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 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.

Objectives (continued)

DOE is also looking for new and innovative ways to accomplish its programmatic goals for manufacturers and encourages applicants to propose creative approaches to deliver services that coincide with AMO 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;
- Cyber security – assisting small & medium sized enterprises (SMEs) in threat detection and mitigation.
- 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 (http://energy.gov/isosep); 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.

Objectives – Partnership and Student Training

Applicants must formally partner with one of the 28 existing Industrial Assessment Centers as a mentor IAC. Additional information on the 28 existing IACs can be found at: https://iac.university.

Extension IACs should discuss the nature and extent of the proposed collaboration/partnership with the existing IAC. The existing IACs may partner as a mentor IAC on more than one Application under this FOA.

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 the items listed on the next slide:

Objectives – Partnership and Student Training Continued

- 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 subject matter expert or DOE supporting functions, as developed by individual applicants.

Non-Responsive Applications

To be considered for substantive evaluation, an applicant's submission must meet the criteria set forth in Section III of the FOA, "Eligibility Information."

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

Award Information

Total Amount to be Awarded	**$4,080,000***
Average Award Amount & # of Awards	EERE anticipates making awards that range from $600,000 to $680,000. EERE anticipates making 3-6 awards under this FOA.
Types of Funding Agreements	Cooperative Agreements, Grants, Technology Investment Agreements, Work Authorizations, and Interagency Agreements
Period of Performance	48 months
Cost Share Requirement	20% of Total Project Costs

*Subject to the availability of appropriated funds

Statement of Substantial Involvement

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

1) EERE shares responsibility with the Recipient for the management, control, direction, and performance of the Project.
2) EERE may intervene in the conduct or performance of work under this Award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.
3) EERE may redirect or discontinue funding the Project based on the outcome of EERE's evaluation of the Project at the Go/No Go decision point.
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.

Cost Sharing

Cost Sharing Requirements

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

Cost Share Contributions

- Contributions must be:
  - Specified in the project budget
  - Verifiable from the Prime Recipient's records
  - Necessary and reasonable for proper and efficient accomplishment of the project
- Every cost share contribution must be reviewed and approved in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred

Allowable Cost Share

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

Entity	Cost Principles
For-profit entities	FAR Part 31
All other non-federal entities	2 CFR Part 200 Subpart E - Cost Principles

Allowable Cost Share

- Cash Contributions
  - Encompasses all contributions to the project made by the recipient, subrecipient, or vendor for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is considered cash cost share.
- In-Kind Contributions
  - Encompasses all contributions to the project made by the recipient, subrecipient, or vendor that do not involve a payment or reimbursement and represent donated items or services. In-Kind cost share items include volunteer personnel hours, donated existing equipment, donated existing supplies, etc.

Unallowable Cost Share

- The Prime Recipient may not use the following sources to meet its cost share obligations including, but not limited to:
  - Revenues or royalties from the prospective operation of an activity beyond the project period
  - Proceeds from the prospective sale of an asset of an activity
  - Federal funding or property
  - Expenditures reimbursed under a separate Federal Technology Office
  - Independent research and development (IR&D) funds
  - The same cash or in-kind contributions for more than one project or program

Cost Share Payment

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

FOA Timeline

EERE anticipates making awards by August 2017

Pre-Selection Interviews

- EERE may invite one or more applicants to participate in Pre-Selection Interviews
- All interviews will be conducted in the same format
- 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
- Participation in Pre-Selection Interviews with EERE does not signify that applicants have been selected for award negotiations

Letters of Intent

Letters of Intent ("LOIs") are recommended

- The LOI must comply with the content and form requirements of Section IV.B.i of the FOA, and
- The applicant should enter all required information and click the "Create Submission" button in EERE Exchange by the deadline stated in the FOA.
- Secondly, the Applicant must create a separate Letter of Intent document for email submission to EERE. The Letter of Intent follow the requirements listed in the FOA and must be submitted via email to the following email address: IACExtension@ee.doe.gov.

The LOIs should not contain any proprietary or sensitive business information

EERE will not provide notification of acceptance for Letters of Intent

Full Applications

- The Full Application includes:
  - **Technical Volume**: The key technical submission - info relating to the technical content, project team members, etc.
  - **Statement of Project Objectives:** Objectives and scope summary, Tasks to be performed and milestones to be met
  - **SF-424 Application for Federal Assistance:** The formal application signed by the authorized representative of the applicant.
  - **SF-424A Budget & Budget Justification:** a detailed budget and spend plan for the project.
  - **Summary for Public Release:** 1 page, appropriate for public release
  - **Summary Slide:** 1 powerpoint slide giving an overview of the project
  - **Administrative Documents:** E.g., FFRDC Authorization (if applicable), Disclosure of Lobbying Activities, etc

Full Applications: Technical Volume Content

- **Technical Volume: the key technical component of the Full Application**

Content of Technical Volume	Suggested % of Technical Volume
Cover Page	
Project Overview	10%
IAC Operations Approach	30%
Student Staffing, Training and Integration with College Curriculum	20%
Collaborations and Industrial Demographics	20%
Technical Qualifications, Resources and Commitment	20%

Full Application Eligibility Requirements

- Applicants must submit a Full Application by **3/14/2017**
- Full Applications are eligible for review if:
  - The Applicant is an eligible entity Section III.A of FOA;
  - The Cost Share requirement is satisfied Section III.B of FOA;
  - The Full Application is compliant Section III.C of FOA; and
  - The proposed project is responsive to the FOA Section III.D of FOA
  - EERE will only consider one Full Application per institution of higher education.
  - The Full Application meets any other eligibility requirements listed in Section III of the FOA.

Restricted Eligibility Requirements

This FOA has restricted eligibility requirements to the following entities:

A 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 proposed IAC Extension 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.

Further, the Applicant must be physically located in and serve clients primarily within one of the six geographic areas currently designated by the Advanced Manufacturing Office (AMO) as "underserved." Those areas were already identified in slide 6 of this webinar and are listed in the "Eligibility Information" section III.A.i of the FOA.

Multiple Applications

EERE will only consider one Full Application per institution of higher education. For example, EERE will not consider applications from different departments or schools of engineering from the same institution. This limitation does not prohibit an entity from collaborating on other submissions to this FOA (e.g., as a proposed Subrecipient) as long as the entity is not the Prime Applicant for those submissions.

Merit Review and Selection Process (Full Applications)

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

Technical Merit Review Criteria

Criterion 1: IAC Operations Approach (30%)

- Effectiveness and quality of the organizational model, operation plan, proposed tasks and organizational structure to achieve IAC objectives
- Demonstrated understanding of 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 solutions to 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.
- Demonstrated understanding of the health and safety requirements for faculty and students on industrial assessments.
- Completeness and reasonableness of the proposed Statement of Project Objectives (SOPO).

Technical Merit Review Criteria - Continued

Criterion 2: Student Staffing, Training and Integration with College 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 what that competency measure will be.
- Quality and reasonableness of plan to provide enhanced student training and experience, including discussion of feasibility and demonstration of committed partnerships (such as commitment letters) that may include internships/co-ops for students with partners.

Technical Merit Review Criteria - Continued

- 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 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.
- 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.

Technical Merit Review Criteria - Continued

Criterion 3: Collaborations and Industrial Demographics
Weight: (25%)

- Demonstrated ability to form partnerships and create synergistic efforts in the underserved region that enhance the SME and student experience, particularly with utilities and industrial companies.
- Ability to leverage partnerships to bring direct resources including 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.

Technical Merit Review Criteria - Continued

- Level of industrial concentration to warrant IAC establishment within the applicant's region and understanding of regional industrial base.
- Knowledge of 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.

Technical Merit Review Criteria - Continued

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 college 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.

Technical Merit Review Criteria - Continued

- Adequacy of facilities, equipment, and other resources to accommodate the proposed center.
- Level of commitment from the proposing college 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.
- Level of commitment of the existing IAC partner to carry out its role as mentor to the proposed Extension IAC.

Selection Factors

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

Program Policy Factors

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

1. (For Applicants with prior IAC experience) Past performance of an Industrial Assessment Center with regards to completion of assessments per the approved workplan, quality of assessment impacts and student metrics
2. Industrial demographics/geographic diversity (client base and proximity to other Centers) to ensure appropriate services to all regions of the Unites States
3. Involvement of Minority-serving institutions
4. Overall innovation the Applicant demonstrates in center operations, program structure, and workforce development

Registration Requirements

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

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

Means of Submission

- Letters of Intent and Full Applications, must be submitted through EERE Exchange at

  https://eere-Exchange.energy.gov

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

Key Submission Points

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

Applicant Points-of-Contact

- Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations

- It is imperative that the Applicant/Selectee be responsive during award negotiations and meet negotiation deadlines
  - Failure to do so may result in cancellation of further award negotiations and rescission of the Selection

Questions

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