

Notice of Funding Opportunity

Title: Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE) –

Industrial Assessment Centers

Website: https://eere-exchange.energy.gov/Default.aspx#Foald6c27bf79-b011-48f9-94c1-435d97c2dbb7

Funding: Total: \$52,500,000. Maximum awards: \$500K-\$2.25M, depending on topic.

Dates: Letter of Intent Due: April 1, 2021

Application Submission Deadline: April 22, 2021

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 help US manufacturing competitiveness by providing assessments and recommendations for small and medium-sized enterprises (SMEs) on energy efficiency, productivity, sustainability and competitiveness – including measuring the impacts of these recommendations on reducing greenhouse gas emissions; and second, to address a growing shortage of engineering professionals with applied energy and manufacturing-related skills by training a diverse cross-section of engineering students through hands-on involvement in these assessments.

The Energy Independence and Security Act of 2007, Section 452 (e), specifically identifies the purposes for IACs: (e)Institution of higher education-based industrial research and assessment centers. The Secretary shall provide funding to institution of higher education based industrial research and assessment centers, whose purpose shall be— (1) to identify opportunities for optimizing energy efficiency and environmental performance; (2) to promote applications of emerging concepts and technologies in small- and medium-sized manufacturers; (3) to promote research and development for the use of alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries; (4) to coordinate with appropriate Federal and State research offices, and provide a clearinghouse for industrial process and energy efficiency technical assistance resources; and (5) to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States. In accordance with this direction, this FOA seeks to train the future clean energy and manufacturing workforce by providing hands-on experience for engineering students who will conduct energy assessments at SMEs, often located in rural communities. The IAC program advances the Biden Administration's plan to reach net-zero emissions no later than 2050 and ensure the communities who have suffered the most from pollution are first to benefit.

Project Topic Areas:

Topic Area 1: Manufacturing Technical Assistance and Energy Engineering Workforce Development
The selected IACs will establish and operate centers physically located at their universities to provide resources to
SMEs, critical suppliers and employers of Americans, including those located in disadvantaged communities. As
semiautonomous entities, the prospective IACs must demonstrate their capabilities to recruit and serve SMEs and
describe their approach to identify and communicate recommendations to reduce energy, water usage and waste;
increase productivity and competitiveness; identify opportunities for smart manufacturing, resiliency planning,
decarbonization and electrification; and provide cyber security screenings. These recommendations need to be
effectively reported to the SMEs, together with estimates of the energy and greenhouse gas emissions savings
opportunities, implementation costs, and payback periods. In addition to providing assessments to SMEs, IACs are
required to conduct at least 10 percent of their assessments at wastewater treatment/water resource recovery
facilities. IACs may also provide a limited number of special assessments that DOE approves in the best interest of
enhancing the student's experience as well as resulting in energy savings and other benefits for the recipient of the
assessment.

Topic Area 2: Commercial Building Efficiency Workforce Development Pilot Project [Optional Topic]
To be eligible to apply under Topic Area 2, the applicant must also apply under Topic Area 1. If an applicant only applies to Topic Area 2, without also applying to Topic Area 1, the application will be deemed ineligible and will not be submitted for further review by EERE. Additionally, to be eligible for funding under Topic Area 2, the applicant must be selected for award negotiations under both Topic Area 1 and Topic Area 2. That is, EERE will not select any Topic Area 2 applications that are not also selected under Topic Area 1. EERE's goal for this pilot project is to expand the workforce of building efficiency professionals with technical expertise on a range of topics including, but not limited to: space heating and cooling, ventilation, water heating, lighting, cooking, refrigeration and plug and process loads associated with equipment. Specialized curricula – supplemented with an existing credentialing program within EERE's Buildings Technologies Office (i.e., the Better Buildings Workforce Guidelines for building energy auditor and building commissioning professional) will form the basis for training offered through these partnerships. While IAC



personnel are qualified to perform these activities, DOE seeks to launch a pilot project to expand workforce development programs and to create opportunities for more diverse applicants and students to work within the commercial building market. DOE prefers applications that include technical training provided via partnerships between IACs and community colleges or technical programs (i.e., other educational/vocational entities providing relevant technical content).

Funding:

EERE expects to make a total of approximately \$52,500,000 of federal funding available for new awards under this FOA, subject to the availability of appropriated funds. EERE anticipates making approximately 25 to 35 awards under this FOA. EERE may issue one, multiple, or no awards. Individual awards may vary between \$1,500,000 and \$2,250,000. If applicants are selected for both Topic Area 1 and Topic Area 2, EERE intends to negotiate and issue only one award with the applicant that will cover and fund both Topic Areas. The cost share must be at least 20% of the total allowable costs and must come from non-federal sources unless otherwise allowed by law.

Topic Area Number	Anticipated Number of Awards	Anticipated Minimum Award Size for Any One Individual Award (Fed Share)	Anticipated Maximum Award Size for Any One Individual Award (Fed Share)	Approximate Total Federal Funding Available for All Awards	Anticipated Period of Performance (months)
1	25-35	\$1,500,000	\$1,750,000	\$50,000,000	60
2	5	\$500,000	\$500,000	\$2,500,000	60

Project Requirements:

Specific AMO workforce development goals to which the IAC program will contribute include: Develop or advance 15 workforce curricula focused on manufacturing energy systems and advanced technologies; Train at least 3,000 individuals per year in advanced manufacturing technologies and solutions, including energy management practices; and Expand the participation of MSIs and schools that partner with organizations that increase representation of underrepresented groups in STEM fields. (American Association of Blacks in Energy and National Society of Black Engineers, for example). Similarly, building owners and operators need a diverse workforce trained to identify and implement affordable energy efficiency opportunities that reduce utility costs for businesses, enabling them to instead spend dollars to support jobs and mission critical requirements. As commercial buildings incorporate a growing number of connected and controllable technologies, applied training using real time building performance data and using systems-based building energy evaluation methods, will enable skilled individuals to and grow innovative remote and ongoing data-driven energy management practices to achieve cost effective, persistent energy savings.

It is anticipated under the proposed funding levels that each IAC under Topic Area 1 will: Train at least 10 students annually; Issue certificates of achievement to at least 5 students annually; Conduct approximately 20 assessments per year along with the required, and timely, follow-on reporting, tracking, implementation, and management improvement activities; Execute a partnership and outreach plan that increases program implementation and provides energy and water saving assistance to nonparticipants; Develop and communicate resources (success stories, energy systems research, etc) that advance the mission of the IAC program and support other SMEs; and Provide high quality, value added services to SMEs, including those located in disadvantaged communities, including cybersecurity, smart manufacturing, energy management, sustainability, resiliency planning, decarbonization and other emerging issues.

It is anticipated under the proposed funding levels that IACs selected under Topic Area 2 will: Deliver themselves or mentor trainers in community college/technical program partners to an additional 5-10 students annually; and Conduct approximately 10-20 building assessments per year of small to medium-sized commercial and/or other buildings, (i.e., less than 100,000 sq. ft.), including those located in disadvantaged communities, and prepare associated reports.

Eligible Applicants:

This is a restricted eligibility announcement. Eligibility is restricted to the following types of 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 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. Eligible minority-serving institutions (MSIs) that meet the eligibility requirements are encouraged to apply.