

REQUEST FOR PRE-PROPOSALS 2012-2013

RESEARCH AND DEMONSTRATION PROJECTS

Issue date: September 17, 2012

Pre-proposal Deadline:
October 31, 2012
11:59 p.m.



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The **Iowa Energy Center** was created by the Iowa legislature in 1990 with the mission to advance Iowa's energy efficiency and renewable energy use through transformative research, education and demonstration. Grants are awarded on a competitive basis. Background information on the Energy Center's current and selected past research projects can be found by visiting the Energy Center's website: <http://www.iowaenergycenter.org/grant-and-research-library/>

The Energy Center is primarily supported by an annual assessment on the intrastate gross operating revenues of all gas and electric utilities in Iowa.

PURPOSE OF THIS RFP

Through this Request for Pre-proposals (RFP), the Iowa Energy Center invites new research and demonstration grant pre-proposals. All new awards resulting from this RFP will begin on July 1, 2013. This RFP does **not** solicit conferences, events, small demonstrations and educational programming proposals, or applications to extend grants currently funded by the Energy Center. Please refer to RFP 2012C and 2012D for additional information on these funding opportunities.

ELIGIBILITY

Organizations eligible to receive Energy Center grants are Iowa's public and private educational institutions, private nonprofit organizations and foundations. Grants are not awarded to individuals, for-profit entities, and state, county or local government entities. Proof of private nonprofit status may be required.

AREAS OF INTEREST

The Energy Center seeks innovative research and demonstration pre-proposals that address topics in several broad categories. General research focus areas are:

- Energy Efficiency in Buildings
- Industrial Energy Efficiency
- Transportation Energy Efficiency
- Agricultural Energy Efficiency
- Renewable Energy
- Innovation

Pre-proposals must demonstrate that the project has near-term impact on energy efficiency and/or renewable energy in Iowa.

This year, priority will be given to projects in the following areas:

Energy efficiency in buildings: research that will help produce improvements in energy performance in commercial and residential buildings while addressing the comfort, health and productivity of building occupants, keeping in mind extreme climate conditions and potential for passive design strategies. Projects that address (a) energy performance in whole building design, integrated building design,

innovative building envelope strategies; (b) building system components related to overall system efficiency and advanced control and operational strategies for HVAC equipment, daylighting, and other important building systems, assemblies and components; (c) the relationships between human behavior and decision-making, physical building infrastructure, and systems interaction and controls in an effort to optimize energy performance in existing buildings.

Wind energy: research that will address major challenges in producing electricity through wind power, including (a) performance, reliability, and cost; (for example, reducing the capital cost of large turbines, increasing turbine performance and reliability to reduce operational cost, improved wind resource characterization, transparent integration of the variable source energy onto the grid, etc.); (b) assessment of environmental impacts; and (c) educational initiatives along the entire spectrum of community college to graduate/doctoral students that have a broad impact on wind energy education in Iowa.

Biorenewables: Research and demonstration projects that use Iowa's renewable resources to help overcome the barriers to development and commercialization of second-generation biofuels, industrial chemicals, and high-value bio-based products. Proposed projects must demonstrate potential for energy production, fossil fuel displacement, and/or energy efficiencies in conversion to products or product precursors.

Innovation: The Energy Center continues to seek pre-proposals that advance new ideas. Innovative projects that address other critical areas of energy efficiency and renewable energy, including energy-focused educational research, in new and unique ways are encouraged.

In addition, preference will be given to:

- a) Projects that are multi-disciplinary, inter-institutional, and engage industry, and Iowa's community colleges and independent undergraduate institutions;
- b) Translational and proof-of-concept research;
- c) Research and educational projects that engage IEC's facilities (Biomass Energy Conversion Facility – BECON, and the Energy resource Station at Ankeny).

The Energy Center awards grants for projects that vary in subject, scope, dollar value and duration. In previous years, individual awards have ranged from \$50,000 to \$135,000 annually.

INELIGIBLE PROJECTS

The Energy Center does not fund projects for capital acquisition or construction of any renewable or energy efficiency systems or infrastructure including, but not limited to, wind turbines, solar panels/collectors, ground-source (geothermal) heat pumps, and renewable fuel production or distribution systems. The Energy Center does not fund feasibility studies nor does it provide venture or marketing capital.

PROPOSAL SUBMISSION AND REVIEW PROCESS

This RFP solicits only pre-proposals. An internal review process will select a subset of projects that are deemed to be most responsive to this solicitation. Principal Investigators/authors of the selected pre-proposals will be contacted and encouraged to submit a full proposal.

The Energy Center Director will request input from both external peer reviewers and Energy Center staff for full proposals, and forward recommendations to the Center's Advisory Council for its review and deliberation. The final decision on funding will be made by the IEC Director.

Multi-year projects (up to three years duration) may be proposed. However, awards resulting from this competition will receive annual incremental funding based on satisfactory performance and submission of continuation proposals.

EVALUATION CRITERIA

Pre-proposals that are received on a timely basis and which meet eligibility requirements will be evaluated according to the following criteria:

- Relevance of the proposed research to the Energy Center's mission, the areas of interest and priorities noted in this solicitation;
- The intellectual merit in terms of the strength and clarity of the technical narrative (demonstrated understanding of the problem(s) to be addressed, objectives, strategies and schedule, and metrics for success);
- Potential for direct impact on energy efficiency and/or renewable energy in Iowa;
- The research team's qualifications to do the proposed work;
- Past performance on Energy Center grants, if applicable;
- General reasonableness of the budget estimates.

COMPETITION SCHEDULE

PRE-PROPOSALS

Pre-proposals are due

October 31, 2012

Review of pre-proposals completed; applicants notified of selections

December 3, 2012

FULL PROPOSALS

Requested full proposals are due

January 21, 2013

Reviews completed; full-proposal applicants notified of funding decision

March, 2013

PRE-PROPOSAL PREPARATION GUIDELINES

The purpose of the pre-proposal is to provide sufficient information about the project to enable the Energy Center to determine if the project is responsive to the RFP and a full proposal is justified. Within

the space allotted, the pre-proposal should convince the Energy Center that the project has a bona fide connection to an energy issue of importance to Iowa; that the project is necessary; and that the goals of the project are achievable over the course of the project, if funded. Do not include confidential information in pre-proposals. All RFP documents, including the required cover page and budget form are available at:

<http://www.iowaenergycenter.org/Funding/gp-research/>

Pre-proposals shall contain elements (a) through (g) below, and be formatted for 8.5 x 11-inch paper (1-inch margins, minimum 11-pt font). Elements (b) through (f) shall be **no more than five (5) pages in length:**

- (a) **Cover page (form required)** – Must be signed
- (b) **Problem Statement** – A section which describes the problem(s) the research will address. Include key literature references. Justify the appropriateness of the proposed research team to address the problem(s).
- (c) **Objectives** – Define specifically what the project is expected to achieve. Objectives must be well defined and measurable.
- (d) **Strategies** – Describe the approach that will be used to attain the proposed objectives. Include a project schedule.
- (e) **Evaluation** – Briefly describe how success will be measured with respect to the proposed objectives.
- (f) **Funding History** – Provide a list of related projects (past and in progress) and pending proposals for the Principal Investigator and all Co-Principal Investigators.
- (g) **Budget (form required)** – Provide a budget estimate and brief budget narrative for all years of funding. The anticipated starting date for projects is July 1, 2013. Funding may be requested for up to three years but will be provided in annual increments with continuance subject to annual review of performance. The IEC does not pay F&A Costs (Indirect Costs).

PRE-PROPOSAL SUBMISSION GUIDELINES

All pre-proposals will be submitted electronically by e-mail. **Electronic files shall be submitted as a single PDF file.** The required and signed cover page must be included in the electronic submission.

To be considered timely, **pre-proposals shall be received no later than 11:59 p.m. on October 31, 2012** prevailing time for Ames, Iowa.

ADDRESS FOR SUBMISSIONS

E-mail files should be submitted to: iecgrant@iastate.edu

The Iowa Energy Center reserves the right to fund, in whole or in part, any, all, or none of the applications submitted in response to this RFP.

The Energy Center does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, gender identity, sex, marital status, disability, or status as a U.S. veteran. Inquiries should be made to the Director of the Iowa Energy Center, (515) 294-8819.