



# Iowa energy center

*Opportunity Grant Program*

## REQUEST FOR PROPOSALS — FISCAL YEAR 2017

Issue date: July 1, 2016

Expiration date: June 30, 2017

Pre-proposal deadline: At least ten weeks prior to the proposed project start date

Proposal deadline: Eight weeks prior to the proposed project start date

515-294-8819 | [iecgrant@iastate.edu](mailto:iecgrant@iastate.edu) | [iowaenergycenter.org](http://iowaenergycenter.org)

# REQUEST FOR PROPOSALS FY 2017

## OPPORTUNITY GRANTS

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### About the Iowa Energy Center

**The Iowa Energy Center was created by the Iowa Energy Efficiency Act of 1990 with a mission to:**

- Strive to increase energy efficiency in all areas of Iowa energy use;
- Conduct and sponsor research on energy efficiency and conservation that will improve the environmental, social, and economic well-being of Iowans, minimize the environmental impact of existing energy production and consumption, and reduce the need to add new power plants;
- Serve as a model for state efforts to decrease reliance on imported fuels and to decrease reliance on energy production from nonrenewable, resource-depleting fuels;
- Conduct and sponsor research to develop alternative energy systems that are based upon renewable sources and that will reduce the negative environmental and economic impact of energy production systems;
- Assist Iowans in assessing technology related to energy efficiency and alternative energy production systems and support educational and demonstration programs that encourage implementation of energy efficiency and alternative energy production systems;
- Develop a program to provide assistance to rural residents for energy efficiency efforts;
- Cooperate with the state board of education in developing a curriculum which promotes energy efficiency and conservation; and
- Sponsor research grants and projects submitted on a competitive basis by Iowa colleges and universities and private nonprofit agencies and foundations.

**The Iowa Energy Center supports economic development, environmental sustainability and social well-being in Iowa through energy innovation, education and entrepreneurship. We provide Iowans with reliable, objective information on energy and efficiency options.**

### CONTENTS

PAGE 3

- Opportunity Grant Program Overview
- Estimated Funding
- Eligible Grantees
- Eligible Projects
- Allowable Expenses

PAGE 4

- Proposal Deadlines
- Pre-Proposal Requirements
- Pre-proposal Process

PAGE 5

- Full Proposal Requirements

PAGE 6

- Project Reporting
- Submitting the Pre-proposal and Full Proposal
- Full Proposal Evaluation
- Applicant Notification
- Invoicing
- Termination

PAGE 7

- Questions About this Request for Proposal

PAGE 8

- Appendix A: Guidance on Project Topics Consistent with the Mission of the Iowa Energy Center

PAGE 9

- Appendix B: Cover Page Information

PAGE 10

- Appendix C: Proposed Budget Worksheet

PAGE 12

- Appendix D: Proposal Evaluation Criteria - Research and Development Projects

PAGE 13

- Appendix E: Proposal Evaluation Criteria - Demonstration and Deployment Projects

PAGE 14

- Appendix F: Proposal Evaluation Criteria - Education and Workforce Development Projects

## Opportunity Grant Program Overview

One objective of the Iowa Energy Center is to help Iowa organizations be more successful in attracting external funding that supports projects related to energy research, technology development, demonstration, deployment, education, and workforce development. With that objective in mind, the Energy Center is seeking proposals for near-term projects that will enable researchers to be more competitive in response to federal, nonprofit, or private-sector solicitations. An Iowa Energy Center award would fund proof-of-concept tests, early experimentation, economic viability analyses, piloting, preliminary studies, and similar efforts necessary to enhance a proposal targeting a known or likely external funding opportunity.

Proposals for activities related to external-proposal preparation (e.g., drafting, planning, and technical editing) will not be considered.

The Opportunity Grant program requires the submission of a pre-proposal. Applicants will be notified whether a full proposal may be submitted for consideration.

## Estimated Funding

Subject to the availability of funding, the Energy Center will set aside \$700,000 to award approximately 11 opportunity grants between July 1, 2016, and June 30, 2017. Typical awards will be from \$10,000 to \$100,000; no award shall exceed \$200,000. No matching funds are required.

## Eligible Grantees

Organizations eligible to receive Energy Center grants are Iowa's educational institutions and Iowa-registered private nonprofit organizations and foundations. The Energy Center does not award grants to individuals; for-profit entities; and state, county, or local government entities — though those groups may be partners in the work conducted by the grant recipient. Proof of the private nonprofit status of the applicant may be requested. Collaborations among Iowa organizations are encouraged, but not required.

The proposal's designated principal investigator must be an employee of the organization applying for an Energy Center grant.

## Eligible Projects

Funding decisions will be based largely on how well a full proposal meets the following objectives, based on a quantitative scoring by external expert reviewers using the evaluation criteria listed later in this request for proposals. A proposal should:

1. Directly support preliminary work aimed at strengthening a proposal for an anticipated external funding opportunity being offered by industry, non-Iowa government agencies, non-government organizations, international agencies, or other sponsors. The external opportunity must be energy related and could involve research, technology development,

demonstration, deployment, education, workforce development, or community development. Activities proposed under the Energy Center proposal might include developing prototype software or devices; collecting early data; demonstrating an experimental technique; testing a process; performing a study, analysis, or survey; running a pilot project; and doing an extensive literature survey to demonstrate to the sponsor a comprehensive knowledge of the state of the art.

2. Demonstrate evidence of a primary external funding opportunity that the applicant is targeting, including evidence that the proposed topic is of specific interest to the intended sponsor.
3. Seek, at a minimum, a five-fold return on investment in terms of the ratio of new funding to Iowa from the primary external opportunity versus the Energy Center award. Ideally, the project should be seeking a ten-fold return on investment. For example, an Energy Center award of \$100,000 could support early stage research for an Iowa university and its industrial partners that are seeking \$1,000,000 from a federal agency. A \$10,000 Energy Center award could help an Iowa non-profit organization or community college compete for a \$50,000 non-government foundation grant.
4. Be consistent with the mission of the Iowa Energy Center to advance the environmental, social, and economic well-being of Iowans through improved energy efficiency measures and alternative energy technology. Appendix A provides example topic areas consistent with the Energy Center's mission.

Typical projects under this Iowa Energy Center program might require 6 to 12 months to complete. In some circumstances, however, external funding opportunities may be known well ahead of time, so that the early-stage projects could extend over a longer period. In all cases, the projects funded by the Energy Center under this solicitation must be completed within 18 months of the date of the award.

## Allowable Expenses

Allowable opportunity grant costs are typical of those associated with exploratory work, including personnel, laboratory materials and supplies, equipment, justified travel, and research services. Tuition may be funded subject to the current Iowa Energy Center tuition policy (<http://www.iowaenergycenter.org/grant-funding/competitive-grants/forms-and-other-resources/>).

Unallowable expenses are outlined in 2 CFR Part 200 ([http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=394cce1f1add661dfe486ab68f07b1d1&ty=HTML&h=L&mc=true&n=pt2.1.200&r=PART#\\_top](http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&SID=394cce1f1add661dfe486ab68f07b1d1&ty=HTML&h=L&mc=true&n=pt2.1.200&r=PART#_top)).

Iowa Energy Center opportunity grants may not be used to procure computers. Indirect costs are not allowed under this grant program.

## Proposal Deadlines

-  Pre-proposals will be accepted beginning July 1, 2016, and through June 30, 2017.
-  Pre-proposals must be received at least 10 weeks prior to the proposed start date. Applicants should allow sufficient time for preparing a full proposal if invited.
-  Full proposals, if invited, must be received at least 8 weeks prior to the proposed start date.

Since awards will be made throughout the proposal-acceptance period, the pool of funds available for this competition may be expended before June 30, 2017. Applicants are encouraged to check the Energy Center website ([www.iowaenergycenter.org/opportunity-grants](http://www.iowaenergycenter.org/opportunity-grants)) to verify that the Opportunity Grant program is still accepting pre-proposals.

## Pre-Proposal Requirements

All proposals must be submitted through the Iowa Energy Center's Grant Management System: <https://iec.smartsimple.com>.

Pre-proposal narratives should not exceed 4 pages and should be uploaded as a single PDF file. A cover page and budget information should be entered separately through the Grant Management System.

To enable the Iowa Energy Center to quickly and effectively review them, each pre-proposal must contain the following elements:

1. A completed cover page, generated online, which contains the information shown in Appendix B.
2. A project narrative with the following sections:
  - a. **Abstract**

A summary describing the need for Opportunity Grant funds, clearly identifying the primary external funding opportunity and the applicant's plan to pursue it.  
The abstract should be copied into the Project Narrative text box in the Grant Management System.
  - b. **External Funding Opportunity**

A description of the primary external funding opportunity being targeted, including the following information:

    - i. The sponsor.
    - ii. Evidence that the topic is of specific interest to the funder and that the external funding opportunity exists or will materialize, including a link to the funding announcement, if available.
    - iii. The topic being considered for funding and its relationship to the Iowa Energy Center's mission to advance the environmental, social, and economic well-being of Iowans through improved energy efficiency measures and alternative energy technology.
    - iv. An estimate of the overall external program

- iii. funding and the size of individual awards.
- v. The potential gross funding level the applicant's team will pursue from the external sponsor and the portion of that expected to come to Iowa if the proposal is successful.
- vi. The timing of the opportunity.
- vii. Other potential funding opportunities.

### c. Scope of Work

- A summary of the proposed work, including:
- i. A summary of the applicant's concept to be proposed to the external sponsor.
  - ii. A statement as to how this concept will help transform how the nation produces, transports, or uses energy.
  - iii. A description of the work to be performed with Iowa Energy Center funding, including specific tasks and milestones.
  - iv. An explanation of how the proposed work would improve the likelihood of securing the targeted external funding. The narrative should (1) lay out a clear distinction between the Energy Center project and the larger external project being sought, and (2) demonstrate the need for the preliminary work funded by the Energy Center.
  - v. A list of deliverables to be provided to the Energy Center, including mid-project and final reports.

### d. Qualifications

- A summary of the expertise and capabilities being brought to bear to target external funding, including:
- i. The applicant's credentials in this topic area, including past success in securing external funding;
  - ii. The names of private-sector partners and other Iowa nonprofit and academic partners.
  - iii. Commitments from partners in terms of collaboration and resources;
  - iv. A timeline of the activities that would lead to a proposal to the external sponsor.

### 3. Budget and Schedule

- a. A completed budget must be entered into the Iowa Energy Center's Grant Management System (Appendix C and [iowaenergycenter.org/opportunity-grants/](http://iowaenergycenter.org/opportunity-grants/)).
- b. A brief narrative justifying the items in each budget category.
- c. A tentative schedule for the tasks funded by the Energy Center. Activities funded by the center under this solicitation must be completed within 18 months of the date of the award.

## Pre-proposal Process

The Iowa Energy Center will review pre-proposals on eligibility requirements, the prospects for external funding, and consistency with the center's mission. The center will

strive to notify applicants within one week after pre-proposal submission whether a full proposal will be invited. If a full proposal is encouraged, Energy Center staff will work with the applicant to help ensure that the best possible proposal is submitted for review by external expert reviewers. The Energy Center requires that full proposals be submitted at least 8 weeks prior to the proposed start date. Beyond that, the Energy Center imposes no limitation on the time between the full proposal invitation and full proposal submission. Nevertheless, the center reserves the right to revoke the invitation for a full proposal if excessive time has passed.

## Full Proposal Requirements

All proposals must be submitted through the Iowa Energy Center's Grant Management System: <https://iec.smartsimple.com>.

Full proposal narratives should not exceed 8 pages (not counting resumes and commitment letters) and should be uploaded as a single PDF file. A cover page and budget information should be entered separately through the Grant Management System.

Full proposals must contain the following elements:

1. A completed cover page, generated online, which contains the information shown in Appendix B.
2. A project narrative with the following sections:
  - a. **Abstract**

A summary describing the need for Opportunity Grant funds, the external funding opportunity, and the applicant's plan to pursue it. The abstract should be copied into the Project Narrative text box in the Grant Management System.
  - b. **External Funding Opportunity**

A description of the primary external funding opportunity being targeted, including the following information:

    - i. The sponsor.
    - ii. Evidence that the topic is of specific interest to the funder and that the external funding opportunity exists or will materialize, including a link to the funding announcement, if available.
    - iii. The topic being considered for funding and its relationship to the Iowa Energy Center's mission to advance the environmental, social, and economic well-being of Iowans through improved energy efficiency measures and alternative energy technology.
    - iv. An estimate of the overall external-program funding and the size of individual awards.
    - v. The potential gross funding level the applicant's team will pursue from the external sponsor and the portion of that expected to come to Iowa if the proposal is successful.
    - vi. The timing of the opportunity.
    - vii. Other potential funding opportunities.

### c. Scope of Work

A detailed discussion of the proposed work, including:

- i. A description of the applicant's concept to be proposed to the external sponsor.
- ii. A justification, including key literature references, that this concept will help transform how the nation produces, transports, or uses energy.
- iii. The objective of the work to be performed with Iowa Energy Center funding.
- iv. Details of the work to be performed with Iowa Energy Center funding, including specific tasks and milestones and how they support the objective.
- v. An identification of key risks and mitigation strategies to address them.
- vi. An explanation of how the proposed work would improve the likelihood of securing the targeted external funding. The narrative should (1) lay out a clear distinction between the Energy Center project and the larger external project being sought, and (2) demonstrate the need for the preliminary work funded by the Energy Center.
- vii. A list of deliverables to be provided to the Energy Center, including mid-project and final reports.

### d. Qualifications

A summary of the expertise and capabilities being brought to bear to target external funding, including:

- i. The applicant's credentials in this topic area, including past success in securing external funding;
- ii. The names of private-sector partners and other Iowa nonprofit and academic partners.
- iii. Commitments from partners in terms of collaboration and resources;
- iv. A timeline of the activities that would lead to a proposal to the external sponsor.

### 3. Budget and Schedule

- a. A completed budget must be entered into the Iowa Energy Center's Grant Management System (Appendix C and [iowaenergycenter.org/opportunity-grants/](http://iowaenergycenter.org/opportunity-grants/)).
- b. A brief narrative justifying the items in each budget category.
- c. A tentative schedule for the activities funded by the Energy Center. Note that the activities funded by the Energy Center under this solicitation must be completed within 18 months of the date of the award.

### 4. Resumes

A set of resumes for key personnel (not to exceed 2 pages per person). The set of resumes does not count toward the 8-page limit.

## 5. Letters of Commitment

A set of commitment letters from the main collaborating partners. The commitment letters do not count toward the 8-page limit and can be uploaded separately to the grant management system.

Applicants may upload any additional documentation they feel will help the decision process of the Iowa Energy Center. Although such appendices are not subject to the 8-page limit, applicants should exercise discretion in providing additional material.

Note that all people listed in the proposal as a principal investigator, supporter, or collaborator must have given consent for their names to be included.

## Project Reporting

In addition to other promised deliverables, the grantee shall provide the Iowa Energy Center with a progress report halfway through the project period. Final deliverables must be submitted within 30 days following the grant end date.

The Energy Center will periodically check on the progress of the project through its duration.

The Energy Center will track metrics on funded projects for two years after their completion. The metrics will include information on publications, patents, commercialization, student education, external sponsorship, and further collaborations among the partners that were facilitated by the Energy Center funding.

## Submitting the Pre-proposal and Full Proposal

All proposals must be submitted through the Iowa Energy Center's Grant Management System: <https://iec.smartsimple.com>.

Applicants must submit their pre-proposals and full proposals through the Iowa Energy Center's Grant Management System (<https://iec.smartsimple.com>). Project narratives shall be uploaded as a single PDF file, which may not exceed 25 Mb in size. Paper proposals, whether faxed, mailed, or hand delivered, will not be accepted. Submissions that exceed the stated page limits may be rejected without review.

The Iowa Energy Center intends to treat pre-proposals and full proposals as proprietary until an award is made. Nonetheless, applicants shall not include proprietary or sensitive information in their submittals to the Energy Center. Please note that proposals will be reviewed by external expert reviewers.

## Full Proposal Evaluation

Invited full proposals will be evaluated according to distinct criteria that depend on which of the following three categories the project falls:

1. Research and development.
2. Demonstration and deployment.
3. Education and workforce development.

The specific criteria for these categories can be found in Appendices D through F. In all cases, the Energy Center will be looking for strength in

- Technical merit
- Return on investment
- Impact
- Capability and collaboration
- Leadership

## Applicant Notification

The Iowa Energy Center will strive to notify applicants within 3 weeks after full-proposal submission whether the grant will be awarded. The award process may take up to 5 weeks, so applicants should accommodate that in their project planning.

The Iowa Energy Center may enter into pre-award discussions with an applicant to address issues such as:

- Budget items;
- The scope of the proposed effort that is selected for award;
- Additional information that is needed to enable an award decision;
- Any special terms and conditions that may be required.

## Invoicing

All awards made under this grant program will be cost-reimbursable.

Payment will be made upon receipt of proper invoices until payment has reached 90% of award amount. The remaining 10% invoiced will be paid after the Energy Center has received and approved all contracted deliverables.

## Termination

If during performance of the grant the external opportunity targeted by the grantee is canceled or becomes otherwise unavailable to the proposal team (for example, if a pre-proposal is not invited for a full proposal by the external sponsor), the grantee must notify the Energy Center immediately. The Energy Center director will evaluate the circumstances and may choose to terminate the Energy Center grant. Continuation of the grant may be allowed if other future external funding opportunities for the team are likely.

## Questions about this Request for Proposals

Specific questions about this request for proposals should be addressed in writing to Mark C. Petri, Director of the Iowa Energy Center, at [iecgrant@iastate.edu](mailto: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 request for proposals. Submission requirements for this grant program may be waived at the discretion of the Energy Center.*

*In accordance with Iowa State University policy, the Energy Center does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Office of Equal Opportunity, 3350 Beardshear Hall, Ames, Iowa 50011; (515) 294-7612.*

## Appendix A

### Guidance on Project Topics Consistent with the Mission of the Iowa Energy Center

#### Example topics that meet the Energy Center's mission well:

- Solar energy
- On-shore wind energy
- Biomass and biofuels
- Waste-based power production
- Geothermal power
- Conversion of waste heat and kinetic energy
- Combined heat and power
- Chemical storage batteries
- Fuel cells
- Commercial, residential, and industrial efficiency
- Heating and lighting
- Electricity transmission and distribution
- Energy workforce development
- Energy education

#### Example topics not well suited for Energy Center support:

- Nuclear fission and fusion power
- Off-shore wind energy
- Coal
- Pipelines and other energy-transport media
- Environmental and health consequences and management

## Appendix B

### Cover Page Information to be Entered Online

#### Project information:

- Principal investigator contact information
- Co-principal investigators
- Administrative contact
- Project title
- Project start and end dates

#### Contracting information:

- Organization contracting official
- Organization employer identification number
- Organization Iowa Senate district
- Organization Iowa House district
- Organization federal congressional district

#### Targeted future funding:

- Name of the potential external sponsor this project is targeting
- Program announcement title and solicitation number (if known)
- Proposal due date (if known)
- Potential total new funding
- Potential total new funding to Iowa
- Estimated award date

## Appendix C Proposed Budget Worksheet — To be Completed Online

Refer to instructions for assistance in completing this worksheet.

Project Start Date: \_\_\_\_\_

Project End Date: \_\_\_\_\_

		Requested from the Iowa Energy Center
<b>Salaries &amp; Wages</b>		
1	_____	\$
2	_____	\$
3	_____	\$
4	_____	\$
5	_____	\$
<b>Fringe Benefits</b> (show rates by salary or wage class)		
a.	_____	\$
b.	_____	\$
<b>Total Personnel Costs</b>		<b>\$</b>
<b>Equipment</b> (Itemize and provide justification in the narrative)		
a.	_____	\$
b.	_____	\$
<b>Total Equipment Costs</b>		<b>\$</b>
<b>Total Supply &amp; Material Costs</b>		<b>\$</b>
<b>Supplies &amp; Materials</b> (show total and justify in the narrative)		
<b>Travel</b> (itemize and provide justification)		
a.	_____	\$
b.	_____	\$
<b>Total Travel Costs</b>		<b>\$</b>
<b>Consultants</b> (itemize and provide justification of rates and travel in the narrative)		
a.	_____	\$
<b>Total Consultant Costs</b>		<b>\$</b>
<b>Subcontracted Partners</b> (itemize and provide a total cost per subcontract in the narrative)		
a.	_____	\$
<b>Total Subcontract Costs</b>		<b>\$</b>
<b>Tuition</b> (list by category and number of students)		
	<b>No. of Students</b>	
Undergraduate	_____	\$
Graduate (MS)	_____	\$
Graduate (PhD)	_____	\$
<b>Total Tuition Costs</b>		<b>\$</b>
<b>Total Other Direct Costs</b>		<b>\$</b>
<b>Other Direct Costs</b> (show total and provide justification in the narrative)		
<b>TOTAL ESTIMATED COSTS</b>		<b>\$</b>

## Instructions for completing the online Proposed Budget Worksheet

**Salaries & Wages:** List all personnel to be paid by the project. List their levels of effort (percent or hours and number of months). For university faculty, show summer salaries separately.

**Fringe Benefits:** Show rates and totals for each category of employee (faculty, clerical, graduate student, hourly, etc.).

**Equipment:** List all major equipment to be purchased and a justification for the purchase. An item is considered to be equipment if it has a unit cost of \$5,000 or more and a useful life of one year or longer. Constructed or assembled items are also considered to be equipment if the aggregated component costs exceed \$5,000.

**Supplies & Materials:** Show the total cost and briefly describe in the budget narrative the nature of the supplies and materials to be purchased.

**Travel:** List all planned trips and provide cost estimates for each. For each trip include destinations, number of travelers, duration, fees, transportation, lodging, and meals. Proposed international travel must be fully justified.

**Consultants:** Provide the rates and basis for rates for each proposed consultant. All consultant costs must be included in this category, including consultant travel. In the budget narrative, justify the need for outside consultants.

**Subcontracted Partners:** Routine services should not be included in this category. Include each subcontractor's total costs as a separate line item. Include a letter of commitment from each subcontracted partner.

**Tuition:** Refer to the current Energy Center tuition policy at <http://www.iowaenergycenter.org/grant-funding/competitive-grants/forms-and-other-resources/>. List the number of students by classification and the total tuition that will be charged to the Energy Center for each classification. Only tuition may be charged; other fees are not allowable.

**Other Costs:** This category includes fabrication, equipment maintenance and repair, and other routine services (e.g., printing, mailing costs, chemical analysis, photographic services, and telephone charges) that can be clearly documented as specific to and necessary for the project. In the budget narrative, briefly describe the nature of the proposed Other Costs.

NOTE: The Iowa Energy Center does not pay indirect costs.

## Appendix D

### Proposal Evaluation Criteria - RESEARCH AND DEVELOPMENT PROJECTS

Weight	Criteria	Description
30%	<b>Technical Merit</b>	<p>The proposal demonstrates the technical merit and rationale for the proposed project and provides a clearly defined, technically feasible, and implementable work plan. The technical description of the proposed project and the work plan convincingly present and justify the following:</p> <ol style="list-style-type: none"> <li>1. Validity of the proposed approach and likelihood of success based on current state of the art and on the scientific principles underpinning the proposed approach.</li> <li>2. Development of a comprehensive and complete work plan and schedule with milestones and interrelated tasks that clearly lead to the successful completion of the project.</li> <li>3. The identification of key technical risks and mitigation strategies to address them.</li> <li>4. A clear set of deliverables.</li> </ol>
25%	<b>Return on Investment</b>	<ol style="list-style-type: none"> <li>1. The proposal clearly identifies an external source of potential funding beyond the IEC-funded project.</li> <li>2. The IEC-funded project significantly improves the likelihood of future external funding that will flow into Iowa.</li> <li>3. In terms of the ratio of potential external funding for Iowa vs. the IEC award, the project offers, at a minimum, a five-fold return on investment. Ideally, the project should be seeking a ten-fold return on investment.</li> </ol>
25%	<b>Impact</b>	<ol style="list-style-type: none"> <li>1. The project, if taken to completion with external funding, will have a transformative effect on how the nation produces, transports, or uses energy.</li> <li>2. The project's goals are consistent with the mission of the Iowa Energy Center to advance the environmental, social, and economic well-being of Iowans through improved energy efficiency measures and alternative energy technology.</li> </ol>
15%	<b>Capability and Collaboration</b>	<ol style="list-style-type: none"> <li>1. The team provides an appropriate level of expertise and capability, and is building toward a multi-disciplinary, multi-institutional, strategic collaboration to attract external funding.</li> <li>2. The team has sought collaboration with other Iowa non-profit and academic institutions, including regent universities, independent colleges and universities, and/or community colleges.</li> <li>3. The team has sought collaboration with private-sector partners for possible future commercialization of the technology.</li> </ol>
5%	<b>Leadership</b>	<p>The project helps establish Iowa as a leader in energy or efficiency.</p>

## Appendix E

### Proposal Evaluation Criteria - DEMONSTRATION AND DEPLOYMENT PROJECTS

Weight	Criteria	Description
30%	<b>Technical Merit</b>	<p>The proposal demonstrates the technical merit and rationale for the proposed project and provides a clearly defined, technically feasible, and implementable work plan. The technical description of the proposed project and the work plan convincingly present and justify the following:</p> <ol style="list-style-type: none"> <li>1. The maturity of the technology and its suitability for demonstration or deployment.</li> <li>2. Development of a comprehensive and complete work plan and schedule with milestones and interrelated tasks that clearly lead to the successful completion of the project.</li> <li>3. The identification of key technical risks and mitigation strategies to address them.</li> <li>4. A clear set of deliverables.</li> </ol>
25%	<b>Return on Investment</b>	<ol style="list-style-type: none"> <li>1. The proposal clearly identifies an external source of potential funding beyond the IEC-funded project.</li> <li>2. The IEC-funded project significantly improves the likelihood of future external funding that will flow into Iowa.</li> <li>3. In terms of the ratio of potential external funding for Iowa vs. the IEC award, the project offers, at a minimum, a five-fold return on investment. Ideally, the project should be seeking a ten-fold return on investment.</li> </ol>
25%	<b>Impact</b>	<ol style="list-style-type: none"> <li>1. The project, if taken to completion with external funding, will have a transformative effect on how the nation produces, transports, or uses energy.</li> <li>2. The project's goals are consistent with the mission of the Iowa Energy Center to advance the environmental, social, and economic well-being of Iowans through improved energy efficiency measures and alternative energy technology.</li> </ol>
15%	<b>Capability and Collaboration</b>	<ol style="list-style-type: none"> <li>1. The team provides an appropriate level of expertise and capability, and is building toward a multi-disciplinary, multi-institutional, strategic collaboration to attract external funding.</li> <li>2. The team has sought collaboration with other Iowa non-profit and academic institutions, including regent universities, independent colleges and universities, and/or community colleges.</li> <li>3. The team has sought collaboration with private-sector partners.</li> </ol>
5%	<b>Leadership</b>	<p>The project helps establish Iowa as a leader in energy or efficiency.</p>

## Appendix F

### Proposal Evaluation Criteria - EDUCATION AND WORKFORCE DEVELOPMENT PROJECTS

Weight	Criteria	Description
30%	<b>Technical Merit</b>	<p>The proposal demonstrates the technical merit and rationale for the proposed project and provides a clearly defined, technically feasible, and implementable work plan. The technical description of the proposed project and the work plan convincingly present and justify the following:</p> <ol style="list-style-type: none"> <li>1. Validity of the proposed approach and likelihood of success based on education or workforce development best practices.</li> <li>2. Development of a comprehensive and complete work plan and schedule with milestones and interrelated tasks that clearly lead to the successful completion of the project.</li> <li>3. The identification of key technical risks and mitigation strategies to address them.</li> <li>4. A clear set of deliverables.</li> </ol>
25%	<b>Return on Investment</b>	<ol style="list-style-type: none"> <li>1. The proposal clearly identifies an external source of potential funding beyond the IEC-funded project.</li> <li>2. The IEC-funded project significantly improves the likelihood of future external funding that will flow into Iowa.</li> <li>3. In terms of the ratio of potential external funding for Iowa vs. the IEC award, the project offers, at a minimum, a five-fold return on investment. Ideally, the project should be seeking a ten-fold return on investment.</li> </ol>
25%	<b>Impact</b>	<ol style="list-style-type: none"> <li>1. The project, if taken to completion with external funding, will – through education or workforce development – help transform how the nation produces, transports, or uses energy.</li> <li>2. The project's goals are consistent with the mission of the Iowa Energy Center to advance the environmental, social, and economic well-being of Iowans through improved energy efficiency measures and alternative energy technology.</li> </ol>
15%	<b>Capability and Collaboration</b>	<ol style="list-style-type: none"> <li>1. The team provides an appropriate level of expertise and capability, and is building toward a multi-disciplinary, multi-institutional, strategic collaboration to attract external funding.</li> <li>2. The team has sought collaboration with other Iowa non-profit and academic institutions, including regent universities, independent colleges and universities, and/or community colleges.</li> <li>3. The team has sought collaboration with private-sector partners where applicable.</li> </ol>
5%	<b>Leadership</b>	<p>The project helps establish Iowa as a leader in energy or efficiency.</p>