

**State of Iowa  
Iowa Energy Center Board  
Meeting Minutes of September 17, 2020  
Virtual Special Meeting Only**

**Call to order 1:02 p.m.**

**Board Members Present**

Timothy Whipple, Board Chairperson  
Stuart Anderson  
Jennifer Johnson  
Dan Nickey  
Joel Schmidt  
Valerie Newhouse  
Gul Kremer-Okuden  
Rick Olesen  
Nathan Young  
Jenae Jenison  
Debi Durham  
Geri Huser\*

**Iowa Economic Development Authority Staff Present**

Brian Selinger  
Amber Buckingham  
Stephanie Weisenbach  
Ryan Young  
Shelly Peterson  
Terry Roberson  
Lisa Connell  
Jessica O'Riley  
Betty Hessing  
Vicky Clinkscales

**Others Present**

Brenda Biddle, Iowa Utilities Board Staff

**Welcome & Introductions by Board Chairperson Timothy Whipple**

Timothy Whipple thanked everyone for participating in this virtual IEC Board meeting.

**Roll Call by Betty Hessing, Administrative Assistant**

A quorum was established. All Board Members were present except Geri Huser.

\*Geri Huser joined the meeting at 1:07 p.m.

**Consideration of August 6, 2020, Meeting Minutes**

Motion by                   Stuart Anderson  
Motion                       I move approval of the August 6, 2020 minutes.  
Second                     Dan Nickey  
Voice Vote                 All ayes in favor. Motion approved.

**Public Comment Period** – No comments.

**Fiscal Update – Attachment A**

Presentation provided by Terry Roberson of the final report for the fiscal year ending June 30, 2020. In IEC’s main account there is about \$11.5M and slightly over \$12.3M in the loan account. One thing to note is we are still showing on the obligation log, the award to the Miles’ from last meeting. That has been rescinded, but as of June 30<sup>th</sup> it was an award, and the rescission happened in FY21. Terry Roberson stated he must keep it that way to keep the numbers straight for the State Auditors on our contractual commitments.

**Alternate Energy Revolving Loan Program (AERLP)**

**Loan Program Update** - Stephanie Weisenbach stated at the last meeting you learned about the proposal for revisions to the Alternate Energy Revolving Loan Program. Since that time, we sent out a survey to some stakeholders and are currently reviewing those survey results and we will be able to discuss next steps and we will have a more substantial update for the Board at the October meeting. We received a total of three applications for this cycle—two of them did not pass our screening for eligibility and completeness, so we brought forward one application to the loan committee.

**Keaton Martin – 80kW Solar Project – Attachment B**

Stephanie Weisenbach explained Keaton Martin is an individual applicant that intends to construct a ground-mounted solar electric system for his 4,800 head feed-finish hog operation in Calhoun County. This solar project is 80 kW and the loan request is for \$77,158. There is 50% available in private equity for the upfront cost of the project; the incentives are Federal and State tax incentives. In addition to an anticipated application to the USDA Rural Energy for America Program that has not been secured, but is listed in the incentives total. As terms of collateral, the applicant is pledging an irrevocable letter of credit, which eliminates risk to the IEC, and we will not be disbursing funds until collateral has been secured. The award decision date would be today so if the Board decides to approve this, they would be able to begin construction and would be completing the project and then submitting a report when it is placed in service. The recommendation from the loan committee is a four-year term and for the IEC Board to approve the loan request.

Motion by                   Joel Schmidt  
Motion                       Motion to approve the loan committee’s recommendation.  
Second                     Jennifer Johnson  
Roll Call                    Yes: 11           Abstain: 1 (Rick Olesen)  
Motion approved.

**Grant Program  
Committee Recommendations for IEC Competitive Grant Program  
Recommendations for Awards – Attachment C**

Amber Buckingham gave an overview of each of the applications selected for funding for the IEC Competitive Grant Program Grant Recommendations.

**Grant Approvals – Attachment C**

Motion by Dan Nickey  
Motion Approve 1, 2, 3, 4, 6, 7 and 11 on IEC Competitive Grant Program Grant Recommendations list.  
Second Timothy Whipple  
Roll Call Yes: 12 No: 0  
Motion approved.

Gul Kremer-Okuden got offline at 1:17 p.m.

Motion by Geri Huser  
Motion Approve 5 on IEC Competitive Grant Program Grant Recommendations list.  
Second Stuart Anderson  
Roll Call Yes: 11 No: 0 Recused: 1 (Gul Kremer-Okuden)  
Motion approved.

Gul Kremer-Okuden stayed offline and Joel Schmidt got offline at 1:19 p.m.

Motion by Dan Nickey  
Motion Approve 9 on IEC Competitive Grant Program Grant Recommendations list.  
Second Rick Olesen  
Roll Call Yes: 10 No: 0 Recused: 2 (Gul Kremer-Okuden & Joel Schmidt)  
Motion approved.

Gul Kremer-Okuden and Joel Schmidt got back online at 1:20 p.m.; Timothy Whipple got offline at 1:20 p.m. Jennifer Johnson took over the discussion and vote.

Motion by Geri Huser  
Motion Approve 8 on IEC Competitive Grant Program Grant Recommendations list.  
Second Joel Schmidt  
Roll Call Yes: 11 No: 0 Recused: 1 (Timothy Whipple)  
Motion approved.

Motion by Stuart Anderson  
Motion Approve 10 on IEC Competitive Grant Program Grant Recommendations list.  
Second Dan Nickey  
Roll Call Yes: 11 No: 0 Recused: 1 (Timothy Whipple)  
Motion approved

Timothy Whipple rejoined the call at 1:25 p.m.

**Grant Denials – Attachment D**

Motion by Geri Huser  
Motion Approve 1, 2, 3, 5, 6, 7, 8, 9, 10 and 11 of IEC Grant Committee Recommendations for Denial list.

Second Rick Olesen  
Roll Call Yes: 12 No: 0  
Motion approved.

Joel Schmidt got offline at 1:30 p.m.

Motion by Dan Nickey  
Motion Approve 4 of IEC Grant Committee Recommendations for Denial list.

Second Jennifer Johnson  
Roll Call Yes: 11 No: 0 Recused: 1 (Joel Schmidt)  
Motion approved.

Joel Schmidt got back online at 1:31 p.m.

**Appointments to Committees and Election of Chair/Vice Chair – Attachment E**

**Appointments to Grant Committee** – Lisa Connell stated these are just recommendations, based on the legwork Brian Selinger did to determine who was interested in serving on committees and serving as Chair and Vice Chair. Please state if you are interested in serving on any committees. Lisa Connell stated that she put in the Board Report that we would make these appointments through August of 2021; Lisa Connell suggested we change that because Joel Schmidt and Timothy Whipple’s terms expire in June of 2021, so let’s change the terms to through June 30, 2021. That will put us on a good schedule to do this annually as other peoples terms expire June 30 in subsequent years.

Lisa Connell stated the first appointment to the Grant Committee will be reappointing Jennifer Johnson, Gul Kremer, Dan Nickey and Rick Olesen, and adding Jenae Jenison in Debi Durham’s place, at her request. That would be a five person Grant Committee through June 2021.

Voice Vote Timothy Whipple asked for a voice vote on all in favor of the listed appointments to the Grant Committee. All ayes in favor. Appointments to Grant Committee approved.

**Appointments to Loan Committee** – Lisa Connell stated the next is the appointment of the Loan Committee. Suggestion is to reappoint Stuart Anderson, Valerie Newhouse and Timothy Whipple to a three-person Loan Committee through June 2021. Timothy Whipple suggested we have 4 to 5 members on the Loan Committee. Lisa Connell replied that one thought was to have the new Board Member appointment appointed to the Loan Committee, once he has been officially appointed to the Iowa Energy Center Board. Lisa Connell stated we could vote as is today and plan to add the new Board Member once he/she is officially appointed.

Timothy Whipple told Brian Selinger that if we have trouble getting enough of a vote without conflicts, then we may need to add a fifth person to Loan Committee, but proceed as is for now.

Voice Vote Timothy Whipple asked for a voice vote on all in favor of the listed appointments to the Loan Committee. All ayes in favor. Appointments to Loan Committee approved.

**Election of Chair and Vice Chair** – Lisa Connell stated the proposal was to elect Joel Schmidt as Chair and Dan Nickey as Vice Chair through June of 2021.

Motion by Rick Olesen  
Motion Elect Joel Schmidt to serve as Chair and Dan Nickey to serve as Vice Chair through June 2021.

Second Valerie Newhouse  
Roll Call Yes: 11 Abstain: 1 (Joel Schmidt)  
Motion approved.

## **Other Business**

### **Volkswagen Settlement Update**

Stuart Anderson stated the State of Iowa received \$21M from the Environmental Mitigation Trust that was set-up to settle allegations of violations the Clean Air Act by Volkswagen. Those funds are used by each State to take actions to mitigate those Clean Air Act violations by supporting projects that reduce nitrogen oxide emissions in the State. The Iowa Department of Transportation was assigned to administer these funds; we worked very closely with other State agencies, particularly the Iowa Economic Development Authority, but also the Iowa Department of Natural Resources, the Iowa Department of Agriculture and Land Stewardship, the Iowa Department of Education and the Iowa Department of Public Health and the Attorney General's Office—was involved in the settlement. We initially developed a plan for how to allocate those funds amongst different categories and then review applications and ultimately award funds. We did the first-round last year and in July we announce the second round of awards. What was unique about the second round was this was our first crack at awarding funds for zero emission vehicle technology projects. In the awards in July, we awarded a little over \$2M to replace 40 school buses and public transit vehicles across the State of Iowa with either much better emission diesel vehicles or some alternatively fueled vehicles. Also, awarded a little less than \$300,000 to replace 11 freight trucks around the State. Our third category is for non-road transport and equipment and here we awarded funds to replace the engines on two tugboats that operate on the Mississippi.

For the zero emissions technology projects, we made funding available in two different categories--\$900,000 was set aside for direct current fast charging sites, targeted on the I-80 and I-35 corridor—to try to eliminate where we have more than 50 miles gaps so we can increase comfort of people travelling on those interstates that charging facilities are available and fast charging facilities. Six sites were awarded—3 along I-80 in eastern Iowa and 3 on I-35—one south of Des Moines and one at the Minnesota border (Northwood) and one in the Ames area. The second category--\$200,000 was set aside for Level 2 Community Charging Sites—we were able to fund most of those applications—awarded funds for 15 sites across the State of Iowa. Excited to see these charging projects get awarded and out there.

The next round will be coming up with solicitation by the end of this calendar year, with applications due early calendar year 2021 and awards next Spring or so. We set this up to do three rounds of funding for each category. This will be the third round for the non-vehicle charging categories, but we will likely still have some funds left over so we'll probably do another round of those funds beyond that and then coming up we will just be on our second round of the vehicle charging category so we will have one more after that. It is nice to see these funds get moving and projects implemented quickly.

**Energy Office Updates**

Brian Selinger reported we still have our vacancy for the municipal Board seat, but the Governor's Office will be working to get that application acted upon. We hope by the October Board meeting, we will have a full complement of Board members.

Brian Selinger stated that for the October Board meeting—besides the normal Board business—we plan on having the consulting group that we had contracted with—Synapse Energy Economics—make a brief presentation to the IEC Board. By that point, we will have publicly released the Energy Storage Assessment—the economic potential for Iowa Energy Storage. That would give you a chance to ask questions. We will be in touch as we build out that Board agenda.

Brian Selinger will start working on 2021 calendar schedules so we know when the four Quarterly IEC Board meetings will be held and get them on your schedules.

Joel Schmidt asked if the ad hoc committee is going to bring the legislative proposal to the Board in October. Brian Selinger replied that was the pathway we are going to take—that ad hoc committee—the loan committee and up to the IEC Board.

**4<sup>th</sup> Quarterly Board Meeting for 2020** October 29, 2020, at 1:00 p.m. via virtual only.

Chairperson Whipple asked for a motion to adjourn.

Motion by	Rick Olesen
Motion	I move to adjourn.
Second	Joel Schmidt
<b>Adjournment</b>	1:45 p.m.

Respectfully Submitted,  
Betty Hessing, Administrative Assistant









**Applicant:** Keaton Martin  
**Project Type:** Solar  
**Project Size:** 80 kW  
**Loan Request:** \$77,158  
**Recommendation:** To be presented at IEC Board meeting  
**Board Decision:** September 17, 2020

**ATTACHMENT B**

**Summary**

Keaton Martin is an individual applicant that intends to construct a ground-mounted solar electric system for his 4,800 head feed-finish hog operation in Calhoun County.

**Funding Sources**

**Financing**

Source	Status	% of Eligible Project Cost	Amount
Iowa Energy Center AERLP	Loan request	50%	\$77,158
Private equity	Secured	50%	\$77,159
<b>Total</b>			<b>\$154,317</b>

**Incentives**

Name	Source	Estimate
Federal Investment Tax Credit (ITC)	Federal	\$40,122
Solar Energy System Tax Credit	State	\$20,000
USDA grant, Rural Energy for American Program (REAP)	Federal (unsecured)	\$38,578
<b>Total</b>		<b>\$98,700</b>

**Loan Term**

The cash flow analysis conducted by staff informed the Loan Committee's recommendation to be presented to the IEC Board.

**Applicant:** Keaton Martin  
**Project Type:** Solar  
**Project Size:** 80 kW  
**Loan Request:** \$77,158  
**Recommendation:** To be presented at IEC Board meeting  
**Board Decision:** September 17, 2020

## Collateral

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An irrevocable letter of credit has been pledged as collateral from the same bank that is providing the private loan. IEC Loan funds will not be disbursed by IEDA until after collateral has been secured.

- An irrevocable letter of credit is an official correspondence from a bank, requested by the applicant. It assures that the bank will pay the loan if the borrower fails to pay.

## Project Timeline

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Award Decision Date:	September 17, 2020
Installation:	On or before
Start-up Report:	Within 30 days of being placed in service

# ATTACHMENT C

<b>ACTION</b>
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**REPORT  
IOWA ENERGY CENTER BOARD  
SEPTEMBER 2020**

From: Iowa Energy Center

Subject: Iowa Energy Center Competitive Grant Program  
Recommendations for Awards

**Background:** The Iowa Energy Center (IEC) Competitive Grant Program awards grants for projects that align with one of the seven key focus areas of the Iowa Energy Plan. Projects must also provide a benefit to Iowa ratepayers. Eligible applicants include Iowa based businesses, colleges and universities, and private non-profit agencies and foundations. The maximum grant award is \$1,000,000. The minimum award is \$10,000

As established by 261 *Iowa Administrative Code* 404, the IEC Grant Committee reviews pre-applications and full applications and makes recommendations for funding to the IEC Board. The committee is comprised of five voting members of the IEC Board.

The committee reviewed twenty-two full application submissions as a group and submitted one score sheet per application. Points were assigned based on the scoring matrix established in the Policies and Procedures Handbook. A minimum score of 112 is required to qualify for a grant award. Eleven full application submissions achieved a score above 112. All of the applications that achieved the minimum necessary score have been recommended for awards, totalling \$2,721,102.

The "Iowa Energy Center Grant Committee Recommendations September 2020" is attached.

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<b>Proposed Motion:</b>	<b>Approve of Iowa Energy Center Grant Committee Recommendations</b>
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Submitted By: Amber Buckingham

Attachments: Iowa Energy Center Grant Committee Recommendations  
September 2020

**Iowa Energy Center  
Competitive Grant Program  
Grant Recommendations  
September 17, 2020**

**Total: \$2,721,102**

**1. Iowa Rural Energy Planning, University of Northern Iowa**

Grant award request: \$395,680.

Grant duration: 35 months.

Project: The project will create workforce development for 20 employees in various energy career fields. Work includes the development of community energy plans in conjunction with school districts in 8-10 communities. Implementation of at least one school-based energy efficiency or conservation project per year. Installation of energy efficiency measures in residential homes. Ratepayers will benefit from the creation of community energy plans, which will focus on energy conservation and efficiency efforts to reduce energy waste and implement savings measures.

Recommendation – Approve a total grant award of \$395,680

**2. Paired Electrolyzer for Conversion of Crude Glycerin and Waste CO<sub>2</sub>, Iowa State University**

Grant award request: \$156,000.

Grant duration: 24 months.

Project: The project aims to create an electrolyzer powered by renewable electricity for conversion of glycerin & CO<sub>2</sub> to valuable chemicals. Work includes the development of CO<sub>2</sub> electrolysis, the study of glycerol oxidation, the design and testing of a paired electrolyzer, conduct primary analysis, and using data to model the paired electrolyzer. Ratepayers will benefit from this technology as it allows utilities to harvest more renewable energy, and overproduced wind energy can be used to produce high value chemicals.

Recommendation – Approve a total grant award of \$156,000

**3. Developing an Iowa Energy Curriculum for Secondary Classrooms, University of Northern Iowa**

Grant award request: \$418,696.

Grant duration: 35 months.

Project: This project aims to develop and disseminate an energy curriculum (with career connections) for Iowa secondary students. Work includes curriculum development, field testing of the curriculum, presentation of materials to Iowa Science Teachers Section, and finally, statewide dissemination of the course materials. Ratepayers benefit from a reliable supply of energy, a stable workforce, and better-informed consumers.

Recommendation – Approve a total grant award of \$418,696

**4. Low-cost Biobased Composite Material for Ultradurable and Recyclable Wind Turbine Blades, Iowa State University**

Grant award request: \$450,436.

Grant duration: 36 months.

Project: This project will develop low-cost, biobased recyclable turbine blade material with high durability. Work includes the creation of a recyclable resin matrix and the development of a novel electrothermal method to fabricate biomass residue-derived nanocarbons. Ratepayers will benefit from the reduced cost of power production, increasing the reliability of wind energy, reduction in blade landfilling, and advancing Iowa's leading position in renewable energy.

Recommendation – Approve a total grant award of \$450,436

**5. An Origami Structural Design for Natural Gas Pipeline Rehabilitation, Iowa State University**

Grant award request: \$266,720.

Grant duration: 24 months.

Project: The goal of the project is to prevent future pipeline leakages using a novel origami design of the liners. Work includes the invention of a novel origami liner and replacement of circular liners such that enhanced pipeline load capacity is achieved, testing of the origami liners on Iowa's pipeline construction sites from BP and KBR Inc. The origami liner can sustain the pressure capacity up to 10 times higher than the conventional circular cross-section liner to be verified by analytical and numerical evaluations. Ratepayers will benefit from fewer pipeline accidents, less property damage, and fewer injuries due to pipeline accidents.

Recommendation – Approve a total grant award of \$266,720

**6. Iowa Rural Healthcare Micro-Grid Feasibility Analysis, The Energy Group**

Grant award request: \$69,000.

Grant duration: 12 months.

Project: The goal of the project is to complete an analysis of island-able technologies to determine the cost effectiveness of distributed generation. The analysis will show all soft costs, installation costs, and overall cost effectiveness of micro-grid projects. The team will gather outage information without micro-grid and show the financial benefits if these systems are in place. Overall, this will provide 2-3 examples of micro-grid application and the financial cost/benefit if installations are to be put in place. Ratepayers will benefit from the possible avoidance of unnecessary infrastructure expenses if "island-able" micro-grids are cost effective, saving energy for rural Iowans and healthcare facilities.

Recommendation – Approve total grant award of \$69,000

**7. Grow Energy Workforce Development Program for Rural Iowa Communities, Energy Association of Iowa Schools**

Grant award request: \$190,000.

Grant duration: 36 months.

Project: The goal of this project is to provide workforce energy training and certification for students and building operators in rural SW Iowa. Work includes the development of an Energy Efficient Building Operator Career Pathway including an apprenticeship, national certification, and community college credits. Ratepayers will benefit from decreased building operating costs at large and small commercial buildings and at schools.

Recommendation – Approve total grant award of \$190,000. Grant committee also recommends additional monitoring of the progress of the grant.

**8. Storing Excess Solar/Wind Electricity as Biorenewable Fuels by Electrocatalytic Biomass Conversion, Iowa State University**

Grant award request: \$239,227.

Grant duration: 24 months.

Project: This project will develop a technology to store the intermittent solar/wind electricity as biofuels. Work includes developing prototypes, demonstrating the ability to store electricity produced by lab-scale wind turbines and solar panels using the developed prototypes and complete a cost analysis with laboratory testing data, demonstrating the developed energy storage system has a lifetime energy cost (\$/kWh) competitively lower than that of LIBs. Ratepayers will benefit from a technology that enables greater penetration of the low-cost but intermittent wind and solar sources into the electric grid, thereby reducing rate payers' electricity bills and reducing the carbon footprint of Iowa's power plants.

Recommendation – Approve total grant award of \$239,227.

**9. Predicting Battery Lifetime with Early-Life Data for Grid Applications, Iowa State University**

Grant award request: \$280,070.

Grant duration: 24 months.

Project: This project will develop and teach a software tool for improving prediction of battery lifetime. Work includes the development of a software tool for predicting the lifetime (e.g., 10+ years) of lithium-ion batteries using early-life (e.g., < 6 weeks) test data. The project team will build machine learning models for rapid lifetime prediction of 4+ lithium-ion chemistries and 5+ suppliers and implement the models on the software tool, easy to use and free to download by Iowa utilities. Ratepayers will benefit as the tool will allow Iowa utilities to compare the long-term reliability between battery chemistries/suppliers and select optimal storage solutions, which will promote the wide-scale adoption of battery storage in Iowa, leading to faster growth of renewables and potentially lower energy costs.

Recommendation – Approve total grant award of \$280,070

**10. Improve Battery Energy Efficiency Via Structural Design and 3D Printing for Electric Vehicles, Iowa State University**

Grant award request: \$244,698

Grant duration: 24

Project: The project team proposes a novel structure of all-solid-state EV battery and apply 3D printing to manufacture it. Work includes the design ASSBs for 3D printing, development of ink formulas, development of EHD printing, performance testing and outreach. Ratepayers will benefit from longer battery life and increased safety, which in turn will determine the planning of charging infrastructures (e.g., distances in-between). This effort aligns with Iowa's strategic plans to address safety issues with EV and will potentially guide state legislation and policymaking (e.g., determine allowance for purchase of EVs).

Recommendation – Approve a total grant award of \$244,698

**11. Building Enclosure Council of Iowa Education Program, Building Enclosure Council of Iowa**

Grant award request: \$10,575

Grant duration: 36 months

Project: The project seeks to implement processes and building-science related topics to achieve more tightly controlled building envelopes, which will result in substantial energy savings and nurture the development of a more highly skilled workforce in building enclosure design and construction in Iowa. Annual programming includes five events and one larger event with multiple subjects, for the next three years. Ratepayers benefit from a substantial return on investment both in the short-term through increased expertise in the building design and construction community, and in the long-term through the realization of more energy-efficient building enclosures.

Recommendation – Approve a total grant award of \$10,575



# ATTACHMENT D

<b>ACTION</b>
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**REPORT  
IOWA ENERGY CENTER BOARD  
SEPTEMBER 2020**

From: Iowa Energy Center

Subject: Iowa Energy Center Competitive Grant Program  
Recommendations for Denials

**Background:** The Iowa Energy Center (IEC) Competitive Grant Program awards grants for projects that align with one of the seven key focus areas of the Iowa Energy Plan. Projects must also provide a benefit to Iowa ratepayers. Eligible applicants include Iowa based businesses, colleges and universities, and private non-profit agencies and foundations. The maximum grant award is \$1,000,000. The minimum award is \$10,000.

As established by 261 *Iowa Administrative Code* 404, the IEC Grant Committee reviews pre-applications and full applications and makes recommendations for funding to the IEC Board. The committee is comprised of five voting members of the IEC Board.

The committee reviewed twenty-two full application submissions as a group and submitted one score sheet per application. Points were assigned based on the scoring matrix established in the Policies and Procedures Handbook. A minimum score of 112 is required to qualify for a grant award. Eleven full application submissions failed to achieve a score above 112. All of the applications that failed to achieve the minimum necessary score have been recommended for denial.

The “Iowa Energy Center Grant Committee Denials September 2020” is attached.

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<b>Proposed Motion:</b>	<b>Approve of Iowa Energy Center Grant Committee Recommendations for Denial</b>
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Submitted By: Amber Buckingham

Attachments: Iowa Energy Center Grant Committee Denials September 2020

**Iowa Energy Center  
Competitive Grant Program  
Grant Recommendations for Denial  
September 17, 2020**

Application Number	Grant Title	Applicant Organization	Project Summary
361266	Bio-based asphalt from corn stover	Frontline Bioenergy	This project demonstrates bio-asphalt use at multiple public pavement sites in Iowa.
361514	A cost-effective approach to synthesize graphene from biomass for cross-industry reuse	ISU	We propose methods to synthesize high-value graphene from biomass byproducts for high-tech markets.
361611	Electrochemical Energy from Ethanol	University of Iowa	Fuel cells to generate electricity from ethanol, made available by exploiting magnetic catalysts
365728	Leveraging a Digital Twin to Improve the Resilience of Underground Electric and Gas Infrastructure	ISU	Investigating a standard driven gas and electric location, modeling, and digital twin
366241	Renewable Hydrogen from Biomass	Frontline Bioenergy	This project advances the understanding and potential of renewable hydrogen production from biomass.
366418	Cyber Security Essentials Training Center	ISU	The Cyber Security Essentials Training Center provides security training to energy sector employees
365080	Portable Modular Composite Panel Technology for Blast- and EMP-proofing of Energy Utilities	ISU	Portable ultra-high-performance concrete panels for blast/EMP protection of energy structures.

366621	Understanding the Role of Market Aggregators and Flexibility Services to the Modern Grid	ISU	This study examines the potential and barriers to load aggregators to provide flexibility services
365079	Production of Biobased Epoxy Resins from Corn Stover	ISU	Technology and business development of epoxy resins extracted from biomass, namely, corn stover.
365702	Visium Bio-oil Hydrothermal Refraction	Visium, LLC	Visium technologies provide environmental stewardship solutions yielding feasible renewable products.
366499	Treat Digestate from Municipal Anaerobic Digester to Reduce Energy Consumption and Carbon Intensity	EcoEngineers	Treat Digestate from Municipal Anaerobic Digester to Reduce Energy Consumption and Carbon Intensity

# ATTACHMENT E

REPORT  
IOWA ENERGY CENTER BOARD  
September 2020

<b>ACTION</b>
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From: IEDA Legal

Subject: Appointments to Committees and Election of Chair/Vice-Chair

1. Appointments to Grant Committee

261 *IAC* 403.3(6)(a)(1) provides that, each year, the Board determines the size of the Grant Committee and appoints members to the committee.

**Proposed Motion:**

Reappoint Jennifer Johnson, Gul Kramer, Dan Nickey, and Rick Olesen and appoint Jenae Jenison to a five-person Grant Committee through the August 2021 Board meeting.

2. Appointments to Loan Committee

261 *IAC* 403.3(6)(b)(1) provides that, each year, the Board determines the size of the Loan Committee and appoints members to the committee.

**Proposed Motion:**

Reappoint Stuart Anderson, Valerie Newhouse, and Timothy Whipple to a three-person Loan Committee through the August 2021 Board meeting.

3. Election of Chair and Vice Chair

**Proposed Motion:**

Elect Joel Schmidt to serve as Chair and Dan Nickey to serve as Vice Chair through the August 2021 Board Meeting.

Submitted By: Lisa Connell