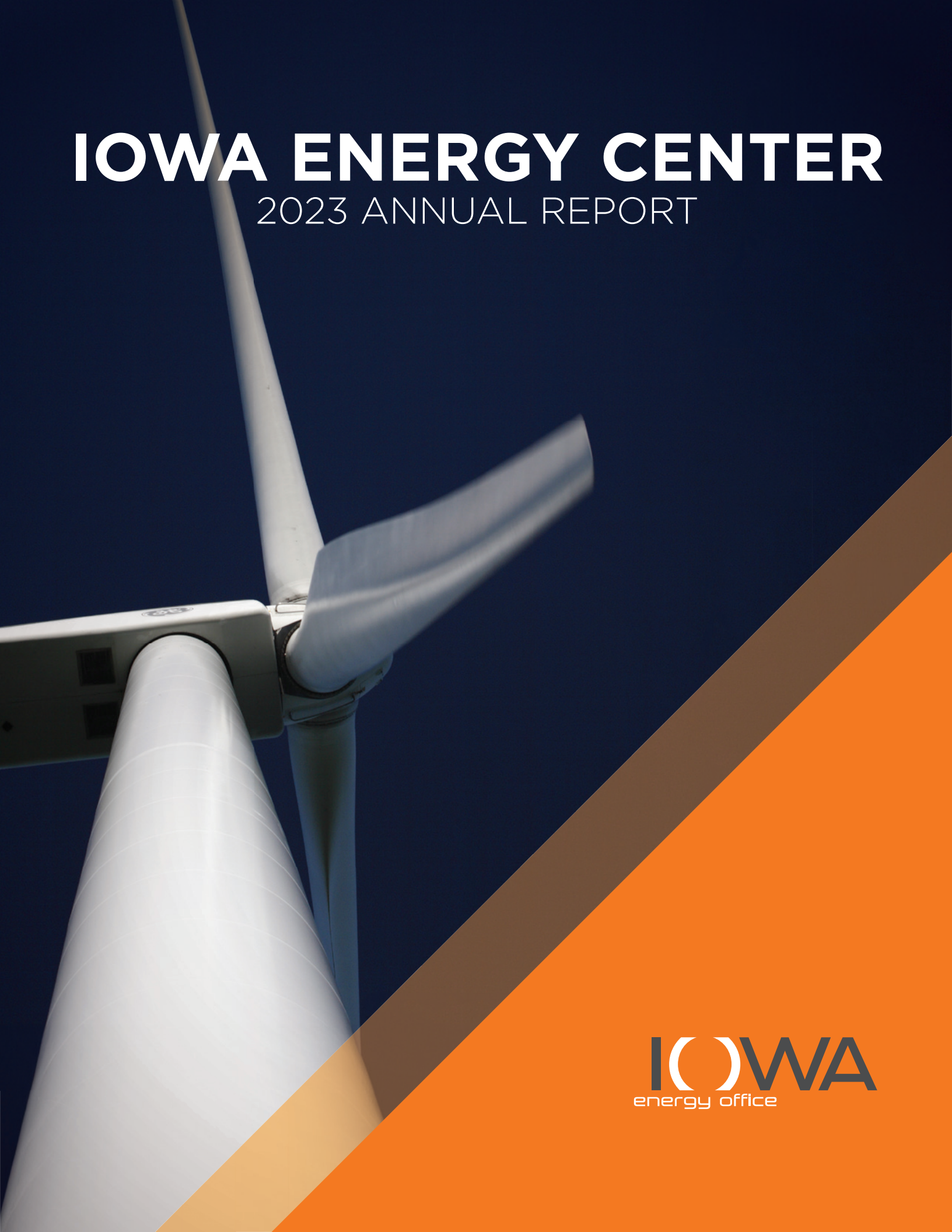
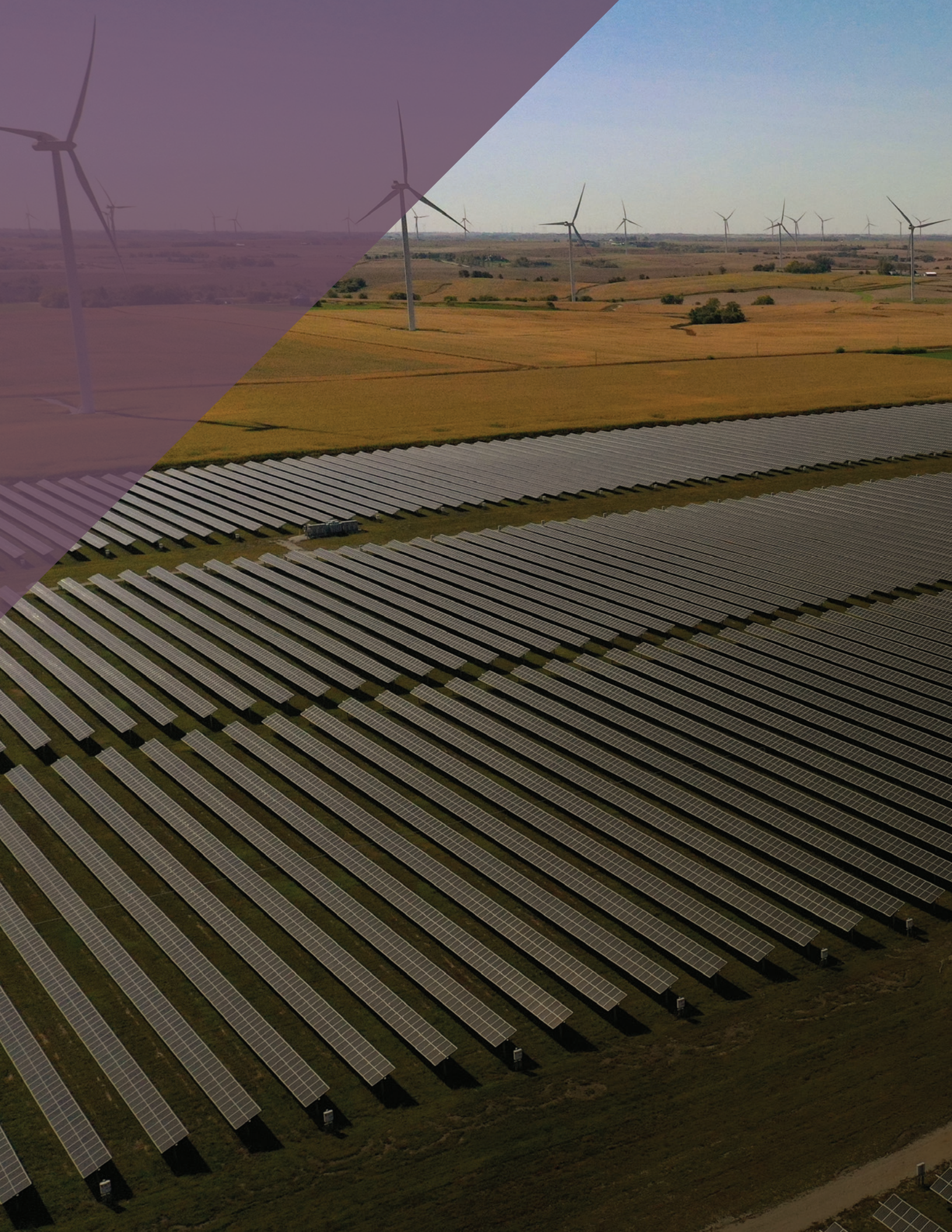


IOWA ENERGY CENTER

2023 ANNUAL REPORT



IOWA
energy office



IOWA ENERGY CENTER OVERVIEW

The Iowa Energy Center (IEC) and Iowa Energy Office are housed within the Iowa Economic Development Authority (IEDA). The governor appoints a thirteen-member board that oversees, approves, and provides direction concerning the programs established by the IEC and coordinates with the IEC and IEDA for the implementation of the programs. (Iowa Code section 15.120.)

The IEC Board held five meetings in 2023. Board meetings are typically held on a quarterly basis and are open to the public. Meeting agendas and minutes can be found on IEDA's website. In addition to regularly scheduled Board meetings, the grant and loan committees met several times throughout the year.

At its meetings, the IEC Board reviews and acts on applications for IEC-administered loans and grants and provides oversight on IEC programs. Also, program managers provide information, programmatic updates and updates on IEDA-led energy initiatives to Board members. External presenters are invited to share information on ongoing or planned energy challenges / opportunities and innovative projects / initiatives. The presentations and discussions are intended to inform and prompt additional project ideas and potential future partnerships and collaboration.

In addition to the Board and committee meetings, positive and impactful activities in 2023 included:

- The IEC Board approved approximately \$1.5 million in grants to six projects as set out in the Grant Program section of the report.
- The Energy Infrastructure Revolving Loan Program (EIRLP) supported innovative municipal utility and business-led energy infrastructure projects. See the Loan Program section of the report for additional details.
- In June 2023, Iowa Department of Transportation Planning, Programming and Modal Division Director Stuart Anderson was elected to chair the Board chair and Craig Just, Donald E. Bentley Associate Professor in Engineering at the University of Iowa was elected to serve as the vice chair.

ABOUT THE IOWA ENERGY CENTER

The Iowa Energy Center (IEC) was created by the Iowa Energy Efficiency Act of 1990 and was managed by Iowa State University (ISU) until October 2017, when management and responsibility for the IEC was transferred to the IEDA. The IEDA is authorized to administer the IEC through June 30, 2027. (Iowa Code section 15.108.11.g.)

Until July 1, 2022, the IEC was funded through an assessment on the intrastate revenues of Iowa's gas and electric utilities pursuant to Iowa Code section 476.10A. However, section 476.10A was repealed effective July 1, 2022. (2017 Iowa Acts, Chapter 169, Section 41)

The mission of the IEC is to support projects and programs which align with the key focus areas of the Iowa Energy Plan, which are:

1. **Energy Workforce Development** – To expand workforce and career opportunities for workers in the energy sector to ensure that the state can attract and train professionals to meet the state's future energy needs.
2. **Technology-based energy Research and Development** – To support technology based-development by encouraging public-private partnerships and innovative manufacturers to develop and bring to market new energy technologies.
3. **Support for Rural and Underserved Areas** – To support rural and underserved areas and vulnerable populations by creating opportunities for greater access to energy efficiency expertise, training, programs, and cybersecurity preparedness for small utilities.
4. **Natural Gas Expansion in Underserved Areas** – To support the expansion of natural gas infrastructure to rural and underserved areas of the state where the absence limits economic development.
5. **Biomass Conversion** – To promote and fund research, development, and commercialization of biomass technology to benefit the state economically and environmentally by further realizing the value-added attributes of biomass in the development of bioenergy, biofuels and biochemicals.
6. **Alternative Fuel Vehicles** – To encourage growth of the alternative fuel vehicle market, particularly for electric vehicles, and the infrastructure necessary to support the market.
7. **Electric Grid Modernization** – To support efforts to modernize the electric grid infrastructure of the state to support increased capacity and new technologies.
8. **Carbon Management** – To support research and development of strategies for carbon management.

IOWA ENERGY CENTER BOARD ROSTER

The 13-member IEC Board Roster has diverse representation from the following organizations: Iowa State University; University of Iowa; University of Northern Iowa; an Iowa Private College/University; an Iowa Community College; IEDA; Iowa Department of Transportation; Office of Consumer Advocate; Iowa Utilities Board; Rural Electric Cooperatives; Municipal Utilities; and two representatives from Investor-Owned Utilities.

Sector	Board Member	Org./Institution/Company	Term Ends
Academia	Dan Nickey (G)	University of Northern Iowa	6/30/2024
	Anne Kimber (G)	Iowa State University	6/30/2027
	Craig Just (L)**	University of Iowa	6/30/2026
	Naomi DeWinter	Eastern Iowa Community College	6/30/2027
	Taaf Vermeulen (G)	William Penn University	6/30/2024
Government	Debi Durham	Iowa Economic Development Authority	6/30/2025
	Erik Helland	Iowa Utilities Board	6/30/2027
	Lanny Zieman (L)	Office of Consumer Advocate	6/30/2027
	Stuart Anderson (L)*	Department of Transportation	6/30/2024
Utilities	Terry Kouba	Alliant Energy	6/30/2025
	Matt Washburn (G)	Northwest Iowa Power Cooperative	6/30/2026
	Kelcey Brown (L)	MidAmerican Energy	6/30/2025
	Troy DeJooode (L)	Iowa Association of Municipal Utilities	6/30/2025

*Elected Board Chair in 2023

**Elected Board Vice-Chair in 2023

(G) Serves on the Grant Committee

(L) Serves on the Loan Committee

The Board's main responsibilities include:

- Providing direction regarding policies, procedures, and programs.
- Reviewing and taking action on loan and grant applications and requests for amendments and other modifications to awards.
- Appointing Board members to grant and loan committees and electing the board chair and vice chair. Annual appointments and reappointments ensure that IEC Board leadership is rotated and that all Board members have an opportunity to serve on either the grant or loan committee. Committee members are instrumental in the review of applications and development of recommended policies, procedures, and awards for the full IEC Board.
- Assisting IEDA in the development and approval of the IEC's budget.



GRANT AND LOAN PROGRAM OVERVIEW

The IEC's financial resources provide support via two pathways:

1. Grant funds that may be issued for eligible projects and programs. Applications are submitted by Iowa businesses, colleges and universities and private nonprofit agencies and foundations and evaluated on a competitive basis. Eligible grant-funded projects must align with one of the eight key focus areas of the Iowa Energy Plan. Projects must also provide a benefit for Iowa ratepayers.
2. The Energy Infrastructure Revolving Loan Program (EIRLP), which began accepting applications in October 2021. The EIRLP provides low-interest loans for energy infrastructure projects that facilitate electricity or gas generation, transmission, storage or distribution.

IOWA ENERGY CENTER GRANT PROGRAM

The IEC Grant Program provides grant funding to Iowa businesses, colleges and universities and private nonprofit agencies and foundations. Eligible grant-funded projects must align with one of the key focus areas of the Iowa Energy Plan. Projects must also provide a benefit for Iowa ratepayers.

The IEC Board adopted an updated Policies and Procedures Handbook in February 2023. The handbook and administrative rules (261 IAC Chapter 404) govern how IEDA staff and IEC Board members manage the IEC Grant Program.

The grant program opened for pre-applications on February 23, 2023. Each applicant was required to submit a pre-application via IowaGrants.gov to be considered for funding. By the end of the pre-application period, 34 pre-applications were received seeking funding totaling nearly \$10 million.

The IEC Grant Committee then met to review and score each pre-application, taking IEDA staff recommendations into consideration. The minimum score to move forward with submission of a full application was 32 out of 40. After review and scoring, 11 pre-applications scored high enough to move forward to the full application phase.

The Grant Committee reviewed and scored 11 full applications for funding totaling just under \$2.6 million. A minimum score of 160 out of 183 was necessary to be considered for funding by the IEC Board. Six applications totaling over \$1.5 million in requests that met the minimum score were approved for funding by the IEC Board in October 2023.

2023 GRANT PROGRAM RECIPIENTS

Grant Title	Recipient Organization	Project Summary	Award Amount
A Low Cost, Bio-inspired Hydroelectric System for Utilizing Untapped Riverine Hydropower in Iowa	Iowa State University	A bio-inspired, low-cost hydroelectric system for utilizing Iowa's untapped riverine hydropower	\$201,916
Development of Functionalized Nanocomposite Membranes for the Selective, High-Capacity Recovery of Critical Materials for a Clean Energy Transition	University of Iowa	Create new materials for recovery of lithium, a critical resource for renewable energy	\$315,133
3D Bioprinting of Microbial Biofilms for Gas Pipeline Corrosion Prevention	Iowa State University	Develop a 3D printed anticorrosion biofilm coating for underground gas pipelines	\$300,000
Resilient Iowa Communities Rural Support Project	University of Northern Iowa	Engage 10-12 rural Iowa towns in an energy assessment and implement 1 energy / carbon project each	\$176,358
Modernization of Protection and Stability Techniques for 100% Clean Electricity	Iowa State University	New protection and stability advances for the reliable operation of a 100% Iowa clean grid.	\$300,000
AI-guided Lignin valorization to make bio-based batteries through interfacial engineering for waste-to-wealth conversion	Iowa State University	AI-tweaked safe bacteria eat lignin, emit current, make bio-battery + Lignin membrane replace Nafion	\$290,000

The IEC plans to launch funding round six in July 2024. Funding decisions will be made at the November 2024 Board meeting.

IOWA ENERGY CENTER LOAN PROGRAM

The Energy Infrastructure Revolving Loan Program (EIRLP) provides low-interest loans for energy infrastructure projects that facilitate electricity or gas generation, transmission, storage, or distribution. An EIRLP loan can be used to cover up to 75% of project costs. The interest rate for a loan is 2%. Businesses, municipal utilities, and rural electric cooperatives are eligible to apply for assistance. A policies and procedures handbook is updated annually and adopted by the IEC Board.

The purpose of the EIRLP is to support:

- Energy infrastructure development
- Electric grid modernization
- Energy sector workforce development
- Emergency preparedness for rural and underserved areas
- Expansion of biomass, biogas, and renewable natural gas
- Innovative technologies
- Development of infrastructure for alternative fuel vehicles

There were four quarterly EIRLP application cycles in 2023. IEDA staff and the IEC Loan Committee reviewed nine applications. Four were denied, four were approved and one is under review and negotiation.

2023 LOAN PROGRAM RECIPIENTS

Organization	Project Summary	Award
City of Hawarden	Complete a new electrical substation to improve reliability, serve new electric load and planned growth, and enable monitoring and controls for the municipal electric utility in Hawarden, Iowa	\$2,500,000
Red Lion Albia Schools Solar LLC	Complete, own and operate a solar plus battery storage project for Albia Community School District in Albia, Iowa	\$186,000
Red Lion Dallas Center LLC	Complete, own and operate a solar project for the city of Dallas Center, including a solar canopy next to the Raccoon River Valley Bike Trail in Dallas Center, Iowa	\$323,000
Red Lion Wapello Schools LLC	Complete, own and operate a solar project for the Wapello Community School District, including a solar canopy carport covering the elementary school drop-off zone.	\$584,000



JANUARY 2024



FINANCIAL REPORTS

EIRLP FINANCIAL REPORT

Funding	Projects (Loans)	Loans Receivable
Available (July 1, 2022)	\$15,582,129	\$1,763,021
Repayments Received (July 1, 2022 thru June 30, 2023)	\$485,926	(\$485,926)
Interest Earnings	\$403,909	
Obligations (June 30, 2023)	(\$3,593,000)	
Expenses (July 1, 2022 thru June 30, 2023)	(\$426,602)	
Loans Receivable Balance (June 30, 2023)		\$1,277,095
Funding Available (June 30, 2023)	\$12,452,362	

IOWA ENERGY CENTER FINANCIAL REPORT

FUNDING	Total
Balance (July 1, 2022)	\$18,836,590
Interest Earnings	\$467,002
	\$19,303,592
OBLIGATIONS/PAYMENTS	Total
Obligations Paid (as of June 30, 2022)	(\$2,663,927)
Remaining Obligations	(\$4,593,084)
Administrative Expenses	(\$157,335)
	\$11,889,246



**IOWA ECONOMIC DEVELOPMENT AUTHORITY
IOWA ENERGY OFFICE**

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