Iowa Energy Office Programs

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About the Iowa Energy Office

» Designated as state energy office via Governor, Iowa Code and US Department of Energy
» At Iowa Economic Development Authority since 2011
» Non-regulatory
» Focus on strategic direction, energy-economic development, stakeholder engagement, communication with state agencies and implementation of programs
Iowa Energy Plan

» Led in 2016 by then-Lt. Governor Kim Reynolds, IEDA and Iowa DOT
» Year-long process, four working groups
» Plan and Resources released 2016
» Progress Report released 2018
Seven Key Focus Areas of Iowa Energy Plan

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<th>Economic Development and Energy Careers</th>
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<td>✓ Energy workforce development</td>
<td>✓ Biomass conversion potential</td>
<td>✓ Natural gas expansion</td>
<td>✓ Access to energy expertise in rural areas</td>
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<td>✓ Technology-based R &amp; D (e.g. energy storage pilot projects)</td>
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<td>✓ Grid modernization vision</td>
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<td>✓ Alternative fuel vehicles</td>
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Iowa Energy Center (IEC)

- Formerly at ISU, utility rate-payer funded
- SF 513 signed into law May 12, 2017
  - Transferred management and responsibility of the Iowa Energy Center from ISU to IEDA
  - IEDA-IEC Mission – To support activities which align with the 7 key focus areas of the Iowa Energy Plan
- Official transfer took effect October 1, 2017
- Iowa Energy Center Board oversight, Governor-appointed
- Programs opened March 20, 2019
- The Iowa Energy Center’s funding source sunsets on July 1, 2022
Iowa Energy Center Grant Program

Amber Buckingham
IEC Grant Program

- Eligible grant recipients: businesses, colleges/universities, private non-profit agencies/foundations
- Competitive grant program
- At least one funding announcement per year
- Must align with one of the 7 focus areas of the Iowa Energy Plan
- Must provide a benefit for Iowa ratepayers
Eligibility Requirements

» Applicant is an eligible applicant
  ▪ Iowa business, college/university or private non-profit agency or foundation

» Funding request meets eligible project and expense requirements

» Request is between $10,000 and $1,000,000

» Initial grant duration does not exceed three years

» Application is complete and submitted via IowaGrants

» Principal investigator is not named as PI on any other applications.
Application Process

» Funding announcement will be made via press release and posted on IEDA website.
» Pre-applications and Full Applications must be submitted via IowaGrants.gov
» Applicants must first complete a pre-application
» Grant Committee will review pre-applications and invite selected applicants to complete a full application
» Grant Committee will review full applications and score the full applications before making recommendations to the Iowa Energy Center board, who will then vote on each application.
First Round Stats

» Average award last round was $260,000
  ▪ Most were right around $300,000
» Most grants were around three years duration
» 61 pre-applications
» 19 full applications
» 10 grants awarded
» Most grants aligned with the Technology Research and Development Key Focus Area
» Most applications and awarded grants were from/to academic institutions
Future Funding Opportunities

» Next funding cycle will be announced in December
» Tentative plans to make award decisions in August 2020.
  ▪ Pre-application would open in February 2020
  ▪ Full application – if invited, would open in April 2020
Iowa Energy Center Loan Program

Stephanie Weisenbach
IEC Loan Program - AERLP

Alternate Energy Revolving Loan Program (AERLP)
- Began in late 1990s, enacted in Iowa Code
- Zero interest on AERLP funds
- Encourage development of Alternate Energy Production
- Eligible projects: small hydro and AEPs

Definition of Alternate Energy Production (AEP) Facility
- Solar
- Wind turbine
- Waste management
- Resource recovery
- Refuse-derived fuel
- Agricultural crops and residue
- Wood-burning
- Related improvements and facilities
  - Example: energy storage
Loan Amounts

» Up to 50% of eligible project costs
» Minimum loan $25,000
  ▪ Eligible project costs must be $50,000 or greater
» Maximum loan $1 million
» Amount cannot exceed value of collateral. Accepted collateral includes: real property (e.g. land), dedicated CD, irrevocable letter of credit, corporate guarantee
Loan Terms

» No more than 20 years
» Term selected by choosing shortest of the following:
  ▪ Estimated useful life
  ▪ Estimated return on investment
  ▪ Term of any other loan used to finance the project
Eligible Borrowers

» Individuals whose primary residence is in Iowa
» Businesses registered and domiciled in Iowa
» Water and wastewater utilities, rural water districts and sanitary districts

» Eligible borrowers can enter into agreements with ineligible borrowers (e.g., local governments, schools).
» Borrowers must own the Alternate Energy Production facility and be the owner, contract purchaser or lessee of the real property where project is located.
Eligible Costs

» Eligible Costs
  - Real and personal property comprising a project
  - Materials and equipment required for necessary site preparation, construction and installation of a project
  - Labor for site preparation, construction and installation of a project. Only labor performed by a third party, such as an independent contractor, is considered eligible. Ownership of applicant and contractor considered in determining third party status.

» Ineligible Costs
  - Feasibility studies
  - Permits
  - Administrative costs not associated with site prep, construction and installation
  - Costs incurred prior to IEC Board approval
  - Interconnection costs
  - Operation, maintenance and repair
Application

» Must be submitted through IowaGrants.gov
» Some information can be confidential subject to IEDA determination
» Should be submitted by the applicant/ borrower
» Sections include:
  ▪ Applicant and Project Information
    ▪ Requests information to assess creditworthiness, project schedule and contractor.
  ▪ Technology and Energy Generation
    ▪ Requests information including the purpose of energy generation, estimates in kWh, equipment and system information (components), financial info pertinent to payback/ ROI.
  ▪ Budget
    ▪ Requests project bid/ cost estimate breakdown, incentives and sources of funds for match
Loan Review and Decisions

» Applications accepted quarterly
  ▪ IEDA Staff review, recommendations to Loan Committee
  ▪ Loan Committee recommendations to IEC Board
  ▪ IEC Board makes loan decisions

» Eligible costs can be incurred after IEC board decision

» Next application timeframe estimate
  ▪ Open in November
  ▪ Deadline in January
  ▪ Loan decisions at February 2020 IEC Board meeting
Resources

» AERLP Webpage
  ▪  https://www.iowaeconomicdevelopment.com/energyloans
  ▪  Look for updated Application Handbook by late November

» IowaGrants.gov
  ▪  https://www.iowagrants.gov/ under Loan Opportunities

» Tools and Information
  ▪  Example agreements for power purchase, lease: https://www.seia.org/research-resources/model-leases-and-ppas
  ▪  Estimate energy production, cost of energy, decision-making data, etc.
    ▪  PV Watts:  https://pvwatts.nrel.gov/pvwatts.php
    ▪  ReOpt:  https://reopt.nrel.gov/
    ▪  System Advisor Model  https://sam.nrel.gov/
American Recovery & Reinvestment Act (ARRA)
Federal Grant Program
Background on ARRA Energy Funds

» American Recovery & Reinvestment Act of 2009
  ▪ Included funds appropriated through US Dept of Energy (DOE) State Energy Program (SEP) which flows through state energy offices

» A portion of Iowa’s funding used for loans

» Repayments came in and less need for new loans
  ▪ Federal regulations related to construction, environmental review, labor, some equipment purchases
  ▪ Other energy loan programs offering through Iowa Energy Center, Iowa Area Development Group
ARRA Federal Grant Program

» Submitted $4.2M repurposing request to DOE July 19, 2017
» Request ties new grants to Iowa Energy Plan
» DOE approval September 15, 2017
Repurposing Approved! What’s next?

Barriers & Challenges

- New staff
- ARRA 10 years old
- ARRA learning curve
- Federal regulations
Process and Resources

» [Iowa Energy Management Guide](#) for interested applicants
» Pre-App & Final Application
» Notification/Approval Process
» Scope of work
» Contract
Grants and Projects

- Grants awarded: 9
- Funds obligated: $1.426M
  - Energy storage pilots, building energy benchmarking, energy resiliency study, certified energy manager training, biomass/biodigester feasibility & site selection, etc.
- Projects pending: 10 totaling $1.583M
  - Energy efficiency resources, wastewater energy studies, EV readiness plan, prison energy manager, etc.
- Funds remaining: $1.2M
Combined Heat and Power

Shelly Peterson
Combined Heat and Power

More than two-thirds of the fuel used to generate power in the U.S. is lost as heat.

Conversion Losses 63.9%

- Plant Use 1.7%
- T&D Losses 3.1%
- Residential 11%
- Commercial 10.5%
- Industrial 8.2%
- Transportation 0.1%
- Direct Use 1.3%
- Net Imports of Electricity 0.1%
- Unaccounted for 0.46%
- Other 0.18%

Coal 51.1%

Natural Gas 16.9%

Petroleum 0.2%
Other Gases 0.4%

Nuclear Electric Power 19.6%

Renewable Energy 10.1%
Combined Heat and Power (CHP) generates electricity and thermal load at the same time.
Iowa Clean Cities and VW Settlement

MK Anderson
Iowa Clean Cities

- Part of a national network of over 100 coalitions
- Mission: To create public/private partnerships to increase adoption of alternative fuels, advanced vehicle technologies and energy efficient transportation strategies
Project Examples

» EV Exhibit All Iowa Auto Show
» Propane Autogas Answers Event
» Electric Vehicle Ride & Drives
» FleetAnalyses
» Electric Vehicle Charging Station Owners Guide
» Alternative Fuel Vehicle Readiness Guide for Fleet managers
» B20 and E85 Infrastructure Analysis
In 2016 the EPA filed a complaint alleging Volkswagen violated the Clean Air Act by selling approximately 580,000 diesel vehicles equipped with defeat devices.

As a result of two related VW settlements the state of Iowa is expected to receive $21 million.
VW Settlement

Funding Cycle 1 Categories 1-3

- Category 1 Class 4-8 School Bus, Shuttle Bus, Transit Bus
  - 56 Propane
  - 5 B20 Diesel
  - 46 Diesel
- Category 2: Freight Trucks & Port Drayage Trucks
  - 36 Diesel
- Category 3: Non-Road Transport and Equipment
  - 2 Electric
  - 2 Diesel

Funding Cycle 2

- Late 2019-DOT expects applications to open
- Applications will be available for categories 1-4
- Category 4: Zero Emission Vehicle Infrastructure
  - Publicly available electric vehicle charging stations
  - DCFC
  - Level 2
  - Sign up for announcements: iowadot.gov/vwsettlement
The B3 Benchmarking Program Serves as a Tool to Track Your Building Energy Usage

Currently There Are Over 2,200 Buildings Enrolled Within B3

B3 Benchmarking

141 Organizations Currently Enrolled

➢ 52 Cities
➢ 44 School Districts
➢ 19 Higher Education Institutes
➢ 12 Counties
➢ 7 State Agencies
➢ 3 Other
➢ 4 Private Institutions
Buildings consume approximately 40% of total energy used in the U.S.

Buildings that are benchmarked consistently reduce energy use by an average of 2.4% per year.

- Reduce GHG emissions
- Reduce operating costs
- Increase affordability for tenants
- Increase occupant comfort

**Why Benchmark Your Energy Use?**
B3 Benchmarking

- An “apples to apples” comparison of similar buildings within the State of Iowa and the Midwest
- Interfaces with EPA Portfolio Manager
- Energy “Report Card” provides the user a snapshot of their energy performance over time
- Provides building managers the data needed to gain support from upper management to implement energy efficiency projects

The B3 Benchmarking Program Allows Building Owners Several Benefits
QUESTIONS

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