

IOWA ENERGY PLAN

APPENDIX B: *Summary and Highlights from Energy Forums*

**Collaborate locally.
Grow sustainably.
Lead nationally.**

IOWA ENERGY PLAN IS A JOINT INITIATIVE BETWEEN

IOWA
economic development

IOWA DOT

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I. OVERVIEW

In an effort to provide opportunities for interested stakeholders and members of the public to provide suggestions and ideas that will be considered in the development of the Iowa Energy Plan the Iowa Economic Development Authority (IEDA), in collaboration with the Iowa Department of Transportation, held six public forums in March and April 2016. Citizens were encouraged to come, meet the plan development team, and provide thoughts and opinions.

The forums followed an open house format with informational exhibits and project team members available for one-on-one discussions with attendees. An informational presentation about the energy plan and the planning process was given at each meeting, approximately one-half hour after the meeting start time. After the presentation attendees were encouraged to break out into four main groups to engage in a facilitated discussion around each of the four pillars that serve as the foundation of the Iowa Energy Plan:

- Economic Development and Energy Careers
- Energy Efficiency and Conservation
- Iowa's Energy Resources
- Transportation & Infrastructure

The objectives of the energy forums were:

- To **communicate the plan development process** to the public and allow questions to be asked of the development team.
- To **share initial findings from an assessment of Iowa's Energy Position** that was prepared by the plan development team, as a means of informing the public of the current status of energy in Iowa.
- To **allow the public to communicate suggestions and ideas** on the plan development process, goals for the plan, and implementation strategies.
- To **identify areas of interest and/or concern** in various regions of the state, **as well as energy-related best practices** and case studies.

Attendees received several informational handouts and comment cards. They were also encouraged to submit comments in writing, either through the comment cards or via the Plan's website. All materials distributed during the forums are available on www.iowaenergyplan.org.

This report includes a summary of meeting attendance and highlights of the energy forum discussions.

II. MEETING LOGISTICS

The forums were held at the locations and venues identified below:

AMES – TUESDAY, MARCH 29,

5:30 P.M. TO 7:30 P.M.

Iowa State University (Iowa State Center), Scheman Building, Room 204
1805 Center Dr., Ames, IA 50011

STORM LAKE – WEDNESDAY MARCH 30,

5:30 P.M. TO 7:30 P.M.

Buena Vista University, Dows Conference Center
610 W 4th St., Storm Lake, IA 50588

COUNCIL BLUFFS – THURSDAY, MARCH 31,

5:30 P.M. TO 7:30 P.M.

Iowa Western Community College
Looft Hall Conference Center, Room 006
2700 College Rd., Council Bluffs, IA 51503

OTTUMWA – TUESDAY APRIL 12,

5:30 P.M. TO 7:30 P.M.

Indian Hills Community College - The Formal Lounge (Building C)
525 Grandview Ave., Ottumwa, IA 52501

CEDAR RAPIDS/MARION – WEDNESDAY, APRIL 13,

6:00 P.M. TO 8:00 P.M.

Kirkwood Community College Training and Outreach Center
3375 Armar Dr., Marion, IA 52302

DUBUQUE/PEOSTA – THURSDAY APRIL 14,

5:30 P.M. TO 7:30 P.M.

Northeast Iowa Community College – Conference Center 1 and 4
8342 NICC Dr., Peosta, IA 52068

III. MEETING ATTENDANCE

A total of 217 members of the public and Working Group members attended the energy forums. Some individuals participated in more than one session.

Table 1. Attendance to Public Meetings

Iowa Institution	Public	Working Group Members	Total
Ames – March 29th	54	9	63
Storm Lake – March 30th	15	5	20
Council Bluffs – March 31st	29	3	32
Ottumwa – April 12th	16	5	21
Cedar Rapids/Marion – April 13th	47	10	57
Dubuque/Peosta – April 14th	21	3	24
Total (Includes Repeat Participants)	182	36	217

IV. DISCUSSION TOPICS

The following are topics and issues that were brought up during the energy forum discussions; they are compiled from facilitator notes across the six public forums. Topics are organized by each of the foundational pillars established for the planning process but are not presented in any particular order.

Topics Discussed - Economic Development and Energy Careers

- Opportunities for research and development:
 - Miscanthus grass as a source of cellulosic ethanol
 - Algae to biofuels
 - Use of biomass to generate energy
 - Batteries/storage
 - Compressed Air Energy Storage (CAES)
 - Electric vehicles
 - Small Modular Reactors
 - Value added products from biofuel production
- Relationship between the biochemical industry and energy
- Economic impact of biofuels (ethanol, biodiesel, renewable natural gas)
- Economic impact of propane including year round use
- Government leading by example
- Public education needs
- Workforce development challenges (training, aging workforce, educational requirements)

- Two-year degree opportunities for students
- Financial incentives for energy production (planning, wind, solar, biofuels)
- Use of mandates vs. incentives
- Impact of tax credits on technology
- Barriers to using tax credits
- Natural gas production from agricultural waste (manure)
- Natural gas recovery from landfills
- Soil as resource for carbon capture and also economic development
- Understanding that housing and labor are part of the use of economic development as well as energy
- Low cost and reliable energy to expand existing and attract new industries
- Prefer incentives over mandates
- Iowa's strength is production and exports which require infrastructure
- Incentivize smaller projects that meet local demand and work with existing infrastructure vs large projects that require infrastructure for export
- Landowner rights

Topics Discussed - Energy Efficiency and Conservation

- Energy reliability and affordability
- Energy efficiency for new homes
- Exploring non-energy benefits associated with the plan
- Residential energy efficiency for low-income customers
- Utility incentive programs
- Concept of life cycle cost analysis
- Capacity building and financing for energy efficiency
- Making energy efficiency visible to the consumer through demonstration projects
- Energy efficiency as lost revenue
- Access to capital

Topics Discussed - Iowa's Energy Resources

- Energy storage maintaining reliability
- Wind generation forecasting (small and large wind projects)
- Energy sources and need for a diverse mix
 - Propane
 - Wind
 - Solar
 - Hydrogen
 - Renewable natural gas
 - Biomass
 - Small nuclear
 - Fossil fuels
 - Micro hydro
- Need for public education

- Solar energy opportunities for Iowa (distributed and utility scale; use on residences and businesses, agricultural facilities and community solar gardens)
- Need to determine fair value of energy resources and the cost to share access to energy resources
- End user tax for all energy sources vs. carbon tax
- Stranded assets with conversion to renewable energy or as part of federal mandates
- Climate concerns
- Pump storage
- Natural gas availability for competing uses: heating, transportation fuel and electric generation
- Need to understand value of all energy resources and transmission infrastructure
- Need for consistency between utilities and local permitting jurisdictions for installation of distributed generation
- Increasing production of renewable energy vs importing energy if lower cost

Topics Discussed - Transportation & Infrastructure

- Transmission lines
 - Replacement of aging infrastructure
 - New infrastructure in underserved areas (for wind)
 - Reliability through RTO or nationally
- Solar panels in the roadway right of way and converting roads to work as solar collectors
- Railroad opportunities for freight and passenger rail corridors
- Ride sharing education and programs
- Large scale storage (propane, natural gas, electricity) for reliability, energy assurance and security
- Concern for smog/excessive vehicle idling
- Electric vehicles
- Multimodal transportation (intermodal connections/facilities)
- Public and rapid bus transit along strategic corridors
- Shortage of natural gas pipelines
 - Access and capacity constraints especially in the northwest region of the state
 - Replacement of aging pipelines
 - Need for regional solutions or public / private partnerships
- Landowner compensation for construction of infrastructure
- Benefits of exporting resources
- Micro grids as reliability or energy security
- Areas to explore in terms of fuels and fueling include:
 - Incentives for alternative fuels
 - Hydrogen fueled vehicles as a long-term opportunity
 - Propane

- Compressed natural gas
 - Vehicles with engines tuned to burn higher levels of ethanol
- Desire for decreasing vehicle miles traveled to reduce carbon emissions and need to build additional roads
- Infrastructure should serve Iowa not be built to pass energy through the state (rail, pipeline, transmission)
- Building out, upgrading, and long term maintenance of grid infrastructure to reliably, efficiently move energy in and out and served as back up for intermittent resources.
- Relationship between freight and pipelines (movement of energy) and safety - need for smaller pipelines
- Concern for siting infrastructure in the correct location (lessening impact to farmland)
- Concern for useful life of energy infrastructure and removal/restoration
- Lack of support for moving feedstock to anaerobic digester

V. COMMENTS RECEIVED FROM THE PUBLIC

A total of 35 public comments were received through April 30, 2016 via comment forms distributed during the energy forums and the energy plan website. Below are high-level highlights of the comments submitted listed in no particular order.

- Consistent policy for distributed generation and opportunity for individuals to generate renewables through net metering.
- Need for additional research and development around use of biomass for electricity generation.
- Updating the electric grid.
- Biogas as an untapped energy source.
- Electric vehicles and their infrastructure as an opportunity for Iowa.
- Opposition to large pipeline infrastructure for fossil fuel transportation.
- Support for solar and wind as distributed generation options instead of large-scale options.
- Support for utility-owned solar energy.
- Support for energy efficiency and conservation as a means of reducing waste.
- Incentives for energy efficiency.
- Concerns about pipeline capacity issues for natural gas.
- Nuclear power as a clean energy source.
- Public education on the need for investment in the future.
- Support for biodiesel.
- Promotion and support of ethanol through advertising and outreach.
- Need for more alternative fueling stations including biodiesel, ethanol, propane and electric vehicles.
- Environmental impacts of corn ethanol.

- Alcohol engines for commercial trucks to replace or reduce diesel fuel.
- Hazard mitigation planning.
- High speed rail.
- Research and development opportunities for carbon dioxide as well as carbon dioxide extraction and sequestration from power generation.
- Need for a value of solar study.
- Environmental externalities (costs and benefits) should be considered when making decisions.
- Make energy investment opportunities available to diverse stakeholders.
- Property rights should be an important part of the plan.
- Concern for global warming and climate change.
- Additional opportunities for wind energy in Iowa.
- Emphasis on personal mobility and not just commercial/freight transit.
- Encourage sales of Iowa generated renewable energy through rule making that allows transmission of power out of Iowa.
- Maintaining biodiversity as we build the energy infrastructure should be a balanced priority.
- Consider intermittency of renewable energy resources.
- Converting alternative solid fuel materials from waste streams into a fuel source.