

Economic Development and Energy Careers – Working Group Kick-Off Meeting

February 29, 2016; 2:30 pm – 4:30 pm

Meeting Summary¹

I. Meeting Objectives

- Explain approach to working group meetings and member contributions.
- Introduce working group topics and scope for discussion moving forward.
- Engage in a high-level conversation about Iowa's opportunities and challenges as they relate to energy.
- Begin identifying programs, policies, and initiatives that work well and could serve as best practices.

II. Questions for Discussion

- What do you think is the biggest opportunity that Iowa has as it relates to energy?
- What are the greatest challenges for the future?
- From your perspective what are some existing energy policies and programs that are exemplary and work well?
- Are you aware of any best practices in terms of policies and programs from the region or other states that would be beneficial to Iowa?

III. Summary of Key Comments

The following items were discussed as potentially missing from the scope of this working group's discussion or needing additional clarification:

- How do we leverage Iowa's energy resources and energy industry to attract and retain businesses and individuals to Iowa?
- How do we train individuals to work in Iowa's energy industry, and how do we retain them once trained?
- Consider the affordability of energy, both for businesses and individual consumers.
- Scope should encompass financing, incentives, policy review, and development to support the energy industry.
- Focus on Iowa companies that make energy related equipment and technology, i.e., energy supply chain manufacturing, as well as those that work in the extraction and production of energy.
- Research and development activities should include university research and work of the Ames National Laboratory.

¹ *Disclaimer: The ideas and items included in this document represent a high level summary of what was discussed during the meeting as interpreted by multiple staff assisting in the note-taking process. They are not to be construed as verbatim comments from any working group member.*

- Economic development related to biomass is certainly in scope, but the working group is missing a voice from the agriculture or ethanol industry. Perhaps a guest presenter or guest meeting participant could help supplement on this topic.

What do you think is the biggest opportunity that Iowa has as it relates to energy?

- Shifting Iowa's energy trade imbalance – i.e. Iowa currently imports about half of the energy it uses.
- Important to compare the economic impact of centralized energy generation vs. distributed generation as a means to reduce the trade imbalance.
- Similarly, it is important to consider the economic impact of energy efficiency.
- Significant opportunities exist for rural areas to offset energy costs -- for example, installing solar panels on hog confinements.
- We need to consider how we make energy and energy-related economic development accessible to all income levels and areas of the state.
- Can we tap into local communities for capital such as investments in industrial parks and incubators?
- We have a successful model for a local energy district, Winneshiek Energy District. What would it take to replicate that model elsewhere in Iowa?
- Increasing cooperation between energy technical assistance providers would help stimulate economic impact.
- Biomass from agriculture and from agricultural industries such as meat packing and wastewater treatment plants is a large resource in Iowa. We could treat meat-packing, confinement facilities, ethanol production, and wastewater treatment plants as bioenergy centers and grow energy crops as feedstocks for these centers.
- Leverage the availability of renewables as an attraction for businesses looking for resiliency and environmental benefits – for example, data centers typically have onsite generation and use the electric grid as backup.
- Energy storage is the “next frontier.” Iowa used to house battery manufacturing companies. Is this an opportunity to bring them back? More broadly, Iowa has an opportunity to marry new developments in clean tech with its competitive advantages in manufacturing.
- A policy around distributed generation and access to the grid is critical. Standards for siting and installing distributed generation resources are needed.
- Net metering policies currently do not apply to all utilities.
- There is a need to for more information and data on how distributed generation can help with resiliency and reliability issues. How do distributed generation and base-load generation compare in terms of reliability?
- Energy efficiency is possibly the greatest opportunity for Iowa: it provides local jobs, it can reduce the energy trade imbalance, and it can free up operations money for local reinvestment.
- There is also an opportunity to focus on when we are using energy and how to flatten the energy load profile.
- Fertilizer use for agricultural activities has a big impact on energy use, transportation, and energy importing of natural gas. How does the development of decision-metering of fertilizers impact energy use? What happens with the development of agricultural crops for cellulosic fuels?
- Consider the state of infrastructure. How much energy are we losing through transmission of electricity, natural gas and other resources? How could reducing transmission loss improve Iowa's energy trade balance?
- Early education (K-8) is key, as well as training offerings for K-12 and beyond plus the general public. Youth need to opportunity to see the salary potential in the energy field and

to be interested in staying in Iowa and working in this industry, in family-sustaining businesses.

What are the greatest challenges for the future?

- Access to reliable information as it relates to energy – for example, development of wind resources and siting transmission – and distribution of accurate information to the public.
- Better transmission to move renewable energy to load centers.
- Controlling carbon emissions.
- Funding for energy efficiency projects for customers of municipal utilities and rural electric cooperatives.
- Resiliency and addressing risks to the electricity grid.
- Finding the right balance between economic development and environmental protection; identifying “win-win” policies, programs, and projects that benefit both the economy and the environment
- Considering the short-term, medium-term, and long-term impacts of energy-related economic development strategies, not just pursuing quick wins

Examples of existing energy policies and programs that working group members consider exemplary:

- Winneshiek District Energy has a model program for rural economic development that accelerates adoption of locally-owned distributed generation through a local capital option.
- Algona and Bloomfield – energy independence studies
- Leopold Center for Sustainable Agriculture
- MidAmerican’s investment in renewable energy
- Iowa Lakes ethanol plant’s installed generation
- Farmers Electric Cooperative
- Wastewater project examples
- Green Iowa AmeriCorps
- Perennial biofuels production on marginal lands
- Performance-based contracts (public-private partnerships)
- Investor-owned utility rate-payer funded energy efficiency programs
- Clean economy report by Brookings Institution
- Illinois renewable energy installation standards for installers
- Center for Industrial Research and Service – Iowa State Extension

IV. Comments and Questions Received from the Public

- As a consumer of gasoline/diesel/ethanol, electricity, and natural gas I want to be able to choose renewably-produced energy, and would prefer that it be from a distributed generation infrastructure. We need policies to promote that renewable energy infrastructure.
- On solar farms: As a consumer, I am interested in a Colorado “Clean Energy Collective” program in Iowa.