

Economic Development and Energy Careers – Working Group Meeting #4

May 24, 2016; 10:00 am – 12:00 pm

Meeting Summary

I. Meeting Objectives

- To **develop draft objectives** for recommendation to the energy plan leadership team.
- To **develop draft strategies** for recommendation to the energy plan leadership team.

II. Revised Vision Statement Discussion

During the meetings facilitators presented a revised vision statement for the Iowa energy plan to working group members. The vision statement was revised using comments received from working group members and the public during the third working group meeting (April 26, 2016).

Iowa is committed to the development of an affordable, reliable and clean energy system that maximizes economic benefits for our state. We will continue to embrace a mix of energy resources, infrastructure, and technologies while prioritizing energy efficiency and conservation to position all of Iowa – both rural and urban – for future growth. As an energy leader, our efforts will drive innovation, foster research and development, create business opportunities and promote environmental stewardship.

III. Revised Guiding Principles Discussion

During the meetings facilitators presented revised guiding principles for the Iowa energy plan to working group members. The guiding principles were revised using comments received from working group members and the public during the third working group meeting (April 26, 2016).

The objectives and strategies put forth in the Iowa Energy Plan will:

- *Foster long-term energy affordability and price stability for Iowa's residents and businesses.*
- *Increase the reliability, resiliency and security of Iowa's energy systems and infrastructure.*
- *Stimulate research and development of new and emerging energy technologies and systems.*
- *Provide predictability in Iowa's energy market by encouraging long-term actions, policies and initiatives.*

- *Expand opportunities for access to resources, technologies, fuels and programs throughout Iowa.*
- *Seek diversity in the resources that supply energy to and within Iowa.*
- *Support alternative energy resources, technology, and fuel commercialization in proven, cost-effective applications.*
- *Promote the protection of the environment and Iowa's natural resources.*

IV. Development of Objectives and Strategies

During the meeting working group members participated in a facilitated brainstorming exercise to identify objectives and strategies for the energy plan correspond to the energy pillar "Economic Development and Energy Careers."

Attached is a summary of the rough objectives and strategies that were discussed during the session. The summary does NOT represent any final recommendations. Ideas put forth were recorded during the meeting and the group will continue to contribute additional thoughts and refine ideas through the end of June.

V. Comments and Questions Received from the Public

- Supporting an energy source (or R&D) for the sake of Iowa jobs is a poor reason. A low cost, highly reliable energy infrastructure will attract jobs to Iowa. Many large manufacturers look at energy costs as highly desirable. Let's please not put a cart before the horse.
- Objectives Comment: Regularly assess and optimize infrastructure and energy distribution – perhaps 4 year cycles? (since the governor is elected every four years this would make a timely tool)
- Strategy comment: Jobs would be a type of welfare if that specific industry depends on subsidies because of poor EROI or ERoEI. Favor clean technologies with strong EROI (financial) & ERoEI (efficiencies) and higher paying jobs will likely be plentiful. An additional thought would be to encourage Worker Directed Initiatives (Co-Operatives) so that profits are not siphoned out-of-state by a corporation.
- Non-binding objective/benchmarks are an excellent idea.
- Objectives should be technology neutral. Specify clean & efficient not a specific industry.

| NUMBER | OBJECTIVE | NUMBER | STRATEGIES |
|--------|---|--------|--|
| 1 | Set baseline for energy reliability, affordability and environmental stewardship as a means to inform policy. | 1.1 | Set emissions goals and measure carbon emission of projects (includes air and water emissions and is not specifically carbon). |
| | | 1.2 | Define what is an acceptable level of reliability for energy systems. |
| | | 1.3 | Establishing appropriate levels of redundancy in the grid and minimize duplication of facilities. |
| | | 1.4 | Measure opportunity cost and what is affordable. Use Cost-benefit analysis to look at trade-offs. |
| | | 1.5 | Define affordability. |
| 2 | Reduce carbon emissions in the state. | 2.1 | Incentive-based strategy instead of a mandate. |
| 3 | Distribute economic benefits of clean energy throughout all of Iowa. | 3.1 | Develop energy resources (wind, solar, etc.) valuation studies of different utility models. |
| | | 3.2 | Ensure the continuation of retail-rate net metering policies for DG customers. |
| | | 3.3 | Establish energy district legislation |
| | | 3.4 | Develop policy that promotes distributed generation in partnership with utility generation |
| | | 3.5 | Develop tools or strategies for local communities interested in expanding clean energy |
| 4 | Expand the geographic reach of workforce development and K12 opportunities. | 4.1 | Promote distance learning opportunities |
| | | 4.2 | Increase sharing online courses between community colleges and other academic institutions. |
| | | 4.3 | Standardize high school vocational training so that dual credits apply across the state. |
| | | 4.4 | Educate employers on the process. |
| | | 4.5 | Increase concurrent enrollment of k-12 and community college classes for workforce training |
| | | 4.6 | Decrease obstacles for career or technical experts to get the correct credentials for teaching in k-12 |
| 5 | Create an efficient, safe, comfortable and affordable housing stock (new construction and existing housing). | 5.1 | Establish PACE financing |
| | | 5.2 | Establish direct loans to homeowners |
| | | 5.3 | Low-interest loans for developers that do energy efficiency improvements |
| | | 5.4 | Increase regional training programs |
| | | 5.5 | On bill financing for rural and municipal utilities. |
| | | 5.6 | Increase funds available for residential energy assessment and planning. |

| NUMBER | OBJECTIVE | NUMBER | STRATEGIES |
|--------|--|--------|---|
| | | 5.7 | Policy for energy information disclosure during real estate transactions for renters or buyers. 18 month usage history. |
| | | 5.8 | Train and certify contractors on high-performance energy retrofits (certifications). |
| | | 5.9 | Training home remodeling contractor on how to sell or upsell home energy efficiency services. |
| | | 5.10 | Statewide enforcement of energy codes through proper funding and certify/licensing. |
| | | 5.11 | Factoring energy cost/value into loan-making process. |
| 6 | Increase commercialization and expansion of Iowa energy-related products, services, companies, technologies. | 6.1 | Attract attention of venture capital to Iowa. Leveraging private dollars |
| | | 6.2 | Create a tax program for private sector that invests in small businesses |
| | | 6.3 | Expand phase zero funding for small businesses. |
| | | 6.4 | Establish startup accelerators targeted to energy sector related businesses. |
| | | 6.5 | Host annual business challenge. |
| | | 6.6 | Review strategies from Iowa energy jobs report – create tax credits. |
| | | 6.6 | Establish startup accelerator targeted to the energy sector |
| | | 6.7 | Enact legislation allowing formation of benefit corporations in Iowa. |
| 7 | Increase opportunities for Iowans to receive energy-sector workforce training. | 7.1 | Eliminate or reduce obstacles in connecting employers and employees. |
| | | 7.2 | Increase concurrent development and workforce training prior to college. |
| 8 | Increase availability of natural gas resources statewide (supply) and maintain a level of affordability (pricing). | 8.1 | |
| 9 | Ensure Iowans have access to affordable energy resources. | 9.1 | |
| 10 | Invest in and develop bioenergy resources with a positive influence on Iowa's natural resources (perennial resources). | 10.1 | |
| 11 | Consider lifecycle and system-level (workforce, equity, social wellbeing, sustainability, etc.) implications when making policy decisions. | 11.1 | |
| 12 | Replace imported fuels with Iowa-grown native biomass. | 12.1 | |
| 13 | Increase availability of renewable natural gas for energy generation, heating and transportation. | 13.1 | |

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| 14 | Increase talent pool for energy-related careers. | 14.1 | |
| 15 | Leverage Iowa workforce development opportunities (see objective from Iowa's job report). | 15.1 | |
| 16 | Set a priority for analyzing existing systems and optimizing them before creating new systems and to reduce trade imbalance. | 16.1 | Review losses and productivity by examining Livermore charts or similar data |
| 17 | Reduce Iowa's energy expenditure intensity per unit of GSP by 25%. | 17.1 | |
| 18 | Analyze and reduce energy trade deficit in the agricultural industry. | 18.1 | Separate agricultural sector for larger industrial sector |
| 19 | Capture and reuse energy / nutrients in wastewater and farmland runoff. | 19.1 | Formally recognize nutrients in fertilizer as an energy source. |
| | | 19.2 | Decrease imports of synthetics |
| 20 | Improve innovation ecosystem and access to capital as a business innovation model. | 20.1 | Incubators |
| | | 20.2 | Creating an equity crowd funding hub |
| | | 20.3 | Tax credits for new businesses / capital gain tax exemption |
| | | 20.4 | Creating energy districts |
| | | 20.5 | Matching grant program for awardees receiving federal funding |
| 21 | Connect leaders in education and employers to understand workforce needs. | 21.1 | |
| 22 | Set a nonbinding goal of Iowa being net positive of carbon emissions by mid-century (not a regulatory goal). | 22.1 | Identify obstacles and barriers. |
| | | 22.2 | Create a cost-benefit analysis |
| | | 22.3 | Identify policy |
| 23 | Global Strategies that could apply to all or several goals | 23.1 | Set energy resource baseline |
| | | 23.2 | Analyze framework |
| | | 23.3 | Review policies |
| | | 23.4 | Understand wasted resources |
| | | 24.4 | Coordinate state incentive/funding |
| | | 24.5 | Establish a point of communication for dissemination of resources |