**Economic Development and Energy Careers – Working Group Meeting #5**

**June 21, 2016; 10:00 am – 1:00 pm**

**Meeting Summary**

## I. Meeting Objectives

- To **finalize development of draft objectives and strategies** for recommendation to the energy plan leadership team.

## II. Development of Objectives and Strategies

During the meeting working group members participated in a facilitated exercise to continue refining the objectives and strategy recommendations that were first developed during the fourth working group meeting. The working group members completed, consolidated, and to some extent prioritized the objectives and strategies, under the "Economic Development and Energy Careers" pillar.

Attached is a summary of the draft objectives and strategies that were discussed during the session. The draft reflects the input provided by working group members. This input will be compiled with other stakeholder input received, and previous data analysis completed to finalize the recommendations that will be analyzed for economic and environmental inputs.

The summary does NOT represent the final recommendations that will be included in the energy plan.

## III. Comments and Questions Received from the Public

- N/A

# TOPIC AREA: NEW TECHNOLOGIES

| Objective | | Strategy | Priority |
|---|---|---|---|
| **I. Increase commercialization and expansion of Iowa energy-based/related technologies.** | 1.1 | IEDA and the Iowa Energy Center should establish an annual business challenge to promote and grow new Iowa energy businesses and energy storage businesses and technology. | 2 |
| | 1.2 | Coordinate existing startup incubators and accelerators at community colleges and universities and develop a program targeted to energy sector related businesses. | 3 |
| | 1.3 | Create an incentive program to purchase Iowa-made energy efficiency and renewable energy product and technology (lighting, insulation, windows, turbines, HVAC systems, etc) | 3 |
| | 1.4 | Work with the Ames Lab and Iowa's colleges and universities to establish an Energy Innovation Fellowship in Residence program that would bring world leading energy expertise to Iowa for periods of time to work with Iowa's energy entrepreneurs. | 2 |
| | 1.5 | Enact legislation allowing formation of Benefit Corporations in Iowa. | 3 |
| | 1.6 | Establish a matching grant program for awardees that receive federal funding. | 3 |

# TOPIC AREA: START UPS

| Objective | | Strategy | Priority |
|---|---|---|---|
| **II. Foster innovation and facilitate access to capital for energy startups.** | 2.1 | Convene a working group to analyze the potential to attract new sources of capital for energy projects including local investors, local capital, and venture funds. | 2 |
| | 2.2 | Expand phase zero funding for small businesses. | 2 |
| | 2.3 | Allow capital gains tax exemption for early-stage investors. | 2 |
| | 2.4 | Utilize World Food Prize model for Iowa to become host of World Energy Prize. | 2 |
| | 2.5 | Carve out a portion of Iowa Innovation Acceleration and Demonstration Funds for energy startups. | 2 |
| | 2.6 | Work with the Ames Lab, colleges and universities and the private sector to provide "intellectual capital" and coaching with an emphasis on service delivery to industry and local governments. | 1 |

# TOPIC AREA: EDUCATION

| Objective | | Strategy | Priority |
|---|---|---|---|
| **III. Strengthen clean energy education and awareness at the K-12 and general public level.** | 3.1 | Develop an energy-focused curriculum in K-12 environment that includes all energy sources including intermittent and non-intermittent, as well as energy efficiency. This would be done by community colleges in partnerships with local schools. | 2 |
| | 3.2 | Incorporate field trips for energy efficiency and determine how to fund them. | 3 |
| | 3.3 | Leverage the state's STEM initiative. | 1 |
| | 3.4 | Reduce obstacles for the K-12 system to get career and technical educators in their faculty by eliminating the bachelor degree minimum requirement for technical workforce educators in secondary schools. Replace it with a requirement of a minimum of 10,000 hours of experience in their specialty, and a minimum of 500 clock hours of training in how to teach. With additional continuing education requirements. | 2 |
| | 3.5 | Develop education programs and materials that are available to the public. | 3 |
| | 3.6 | Update Iowa's Energy Profile bi-annually (or quarterly). | 3 |
| | 3.7 | Catalogue existing energy-related programs, networks, and channels of communications in the state through a simple website that is maintained by the Iowa Department of Education or by IEDA. The database could cover secondary, accredited post-secondary and continuing education and would contain the following information:<br>• SIC DOL Occupational Codes Served by the Education<br>• State Name for the Program<br>• Local Name for the Program<br>• Major Code of the Program<br>• Credential Offered by the Program<br>• Total Clock Hours of the Program<br>• Link to Website of the Program<br>• Contact Information for the Program/course<br>• Typical Start Date Offering Times of the Program.<br>• Accreditation of the Program | 2 |
| | 3.8 | Develop an energy information clearinghouse that is a centralized source of energy information and that is accessible via the Internet. The clearinghouse would incorporate information on federal, state and utility energy programs and incentives. The clearinghouse would be maintained by IEDA. | 2 |
| | 3.9 | Staff a 'helpline' or online resource to provide information and answer questions. | 2 |
| | 3.10 | Distribute information through existing community distribution channels (CIRAS). | 3 |
| | 3.11 | Develop a private-public education and recognition program for business and individuals that make significant improvements to their energy efficiency. | 3 |

| Objective | | Strategy | Priority |
|---|---|---|---|
| | 3.12 | Develop a state campaign "Iowa, energizing the World." | 3 |

| Objective | | Strategy | Priority |
|---|---|---|---|
| **IV. Strengthen clean energy education and awareness at higher education level.** | 4.1 | Establish a Renewable Energy Education Strategic Fund (REESF) for targeted curriculum enhancement and pre-employment training for participating community colleges. | 2 |
| | 4.2 | Develop a Mission Critical Operations (MCO) program or degree at Iowa's universities. | 3 |
| | 4.3 | Promote distance learning opportunities at community colleges and universities. | 3 |
| | 4.4 | Increase sharing of online courses between community colleges and other academic institutions. | 1 |
| | 4.5 | Coordinate vocational training at the high school level with common coding at the community college level. Standardizing high school vocational training so that dual credits apply across the state. | 1 |
| | 4.6 | Undertake a strategic planning initiative with Iowa's community colleges to raid the "best practice" universe of clean energy programs and certificates from around the country, and universalize current successful community college programs most relevant to employment opportunities (e.g. energy auditing, solar PV installations, electrical and green building) to other community colleges around Iowa. | 2 |
| | 4.7 | Increase the ability for streaming services within the community colleges that are not in the Iowa Communications Network (ICN). | 3 |

# TOPIC AREA: WORKFORCE DEVELOPMENT

| Objective | | Strategy | Priority |
|---|---|---|---|
| **V. Increase talent pool for energy related careers, promote employment, and training opportunities in the energy sector.** | 5.1 | Increase connections and communication channels between employer and energy sector training providers to better understand workforce needs in generation, delivery and energy efficiency. | 2 |
| | 5.2 | Establish a centralized energy careers training and education directory, managed by IEDA, that will allow employers to connect with programs training energy sector candidates. | 1 |
| | 5.3 | Create awareness among faculty and parents of the opportunities of energy careers in Iowa. | 2 |
| | 5.5 | Engage Iowa's Universities and Community Colleges in energy-related workforce development. | 3 |
| | 5.6 | Increase partnership between GED training providers and community colleges. | 3 |
| | 5.8 | Create tax credits and state incentives for employers employing specialized trained workers. | 3 |
| | 5.9 | Increase state incentives for companies to hire graduates of Iowa's taxpayer funded (public) schools. | 2 |
| | 5.10 | Create a path for non-profit community energy projects, where the profits are utilized for scholarship opportunities for energy sector training at community colleges. | 3 |
| | 5.11 | Increase taxpayer investment opportunity at the state level for private/public partnership in work-study/internship opportunities. | 2 |
| | 5.12 | Establish a Global Youth Institute focused on energy careers. | 2 |
| | 5.13 | Establish energy efficiency, energy conservation, and renewable energy internship and apprenticeship programs. | 2 |
| | 5.15 | Create a credentialing program for service deliverers in areas such as facility management and solar installation. Follow utility incentive approach to SAVE certification for HVAC contractors as an example. | 1 |
| | 5.16 | Work with community colleges, the Iowa Energy Center, utilities, and other stakeholders to train certified energy efficiency contractors. | 2 |

# TOPIC AREA: ENERGY DIVERSITY

| Objective | | Strategy | Priority |
|---|---|---|---|
| **VI. Maintain diversity Iowa's energy production portfolio.** | 6.1 | Develop a "Swine Shot" initiative with a large "X-Prize" type of approach to incentivize implementation of a community digester project utilizing swine manure and other biomass feedstocks. | 2 |
| | 6.2 | Offer incentives for private investments in municipal wastewater infrastructure to encourage bio-methane production. | 2 |
| | 6.3 | Invest in research and development for perennial bioenergy crops such as giant miscanthus and encourage farmers to adopt these crops. | 3 |
| | 6.4 | Develop incentives to encourage coal generators to co-fire with bioenergy. | 3 |
| | 6.5 | Incentivize existing ethanol plants to investigate the use of perennial crops for cellulosic ethanol production. | 3 |

# TOPIC AREA: ACCESS TO CAPITAL

| Objective | | Strategy | Priority |
|---|---|---|---|
| **VII. Facilitate access to capital for energy efficiency and renewable energy projects.**<br><br>**OR**<br><br>**Create innovative tools, practices, and approaches to further renewable energy and energy efficiency projects and programs throughout Iowa.** | 7.1 | Modify the eligibility requirements of the Iowa's Energy Center revolving loan fund (name?) to include energy efficiency opportunities and accommodate non-profits and other non-business entities. | 2 |
| | 7.2 | Identify additional funding sources to capitalize the Iowa's Energy Center revolving loan fund (name?). | 2 |
| | 7.3 | Create an Energy Delivery Investment Fund that provides financial incentives for energy distribution projects. The fund would be capitalized by individual investors that would in return receive a tax credit for their contribution to the fund.<br><br>Potential sources of funding would include:<br>• Qualified Energy Conservation Bonds (QECB) | 2 |
| | 7.4 | Establish a Green Bank instrument for energy efficiency, renewable energy, and energy storage projects like what has been done in Connecticut.<br><br>Potential sources of funding could include:<br><br>• Qualified Energy Conservation Bonds (QECB)<br>• Crowdfunding | 2 |

| | | | |
|---|---|---|---|
| | | • Private capital<br>• Federal funding | |
| | 7.5 | Pass enabling legislation establishing Iowa as the first state in the nation to create a legal structure for locally formed and led energy districts at the county level, along the lines of the soil and water conservation districts.<br><br>Establish a base level of administrative funding for energy districts contingent upon local district establishment and a small amount of local match. Establish a lead state agency as independent administrative umbrella and technical support for energy districts. | 3 |

# TOPIC AREA: AFFORDABILITY

| Objective | | Strategy | Priority |
|---|---|---|---|
| **VIII. Ensure Iowan's have access to affordable energy sources** | 8.1 | Develop electric rates on the cost causation principle (i.e., those causing the costs to be incurred pay for such costs). | 3 |
| | 8.2 | Ensure Iowa maintains low and competitive industrial energy rates to encourage economic development. | 2 |
| | 8.3 | Periodically survey electricity rates paid by industrial customers in Iowa and compare them to electricity rates paid by comparable customers in other states to ensure that rates in Iowa contribute to an overall competitive advantage for industrial customers seeking to retain and grow their businesses within the state.<br>If a survey finds that Iowa's industrial electricity rates are higher than rates paid by comparable customers in any of the other top ten manufacturing states (measured by % of GSP in manufacturing sector), a more detailed study of causes and corrections should be completed. | 3 |
| | 8.4 | Ensure an economic safety net for affordability such as the Energy Assistance program (LIHEAP). Perform an audit periodically to ensure dollars are appropriately invested and checks and balances are in place. | 2 |
| | 8.5 | Funding of renewable incentive programs should take place outside of the electric rate structure but comparable access for various energy providers regardless of their ownership structure (i.e., make sure electric cooperatives have comparable access to incentives). | 2 |
| | 8.6 | Encourage access to cost-effective energy efficiency programs, throughout targeted models that engage specific customer sectors. | 2 |