Iowa-2025 as the “Energy Capital of the World” and Workshop Overview

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Iowa Energy Workforce Workshop
Iowa State University, Nov 26, 2007
"It's time for Iowa to take the lead in the race to become the energy capital of the world."

- Iowa Governor Chet Culver, March 29, 2007

What will the “energy capital of the world” look like in Iowa, *circa* 2025?

- Economic!
- Efficient!
- Clean!
- Resilient!

...and different from today!
Depletable fuels

Bio-mass

Corn

Ethanol

Soy diesel

Soy

PETROLEUM

Nuclear

COAL

Steam

IGCC

GAS

CC & CT

235U

H2

Emissions

Demand control

Demand

Renew-ables

Bio-Fuels
Our Ultimate Objective
Implement an education/training system that sustains the technical talent necessary to enable the energy-vision for Iowa.

Some initial steps

• Create some consensus, statewide, regarding what the “Energy Capital of the World” vision looks like.

• Facilitate organization of collaborative teams to target different attributes of the education/training system.

• Assist each team to obtain funding for their work.

• Maintain loose confederation of these teams.
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<th>Topic or activity</th>
<th>Person</th>
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<td>1:00-1:15</td>
<td>Welcome and introduction</td>
<td>Mark Kushner, Iowa State University</td>
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<td>1:15-1:30</td>
<td>Iowa-2025 as the “Energy Capital of the World” and Workshop Overview</td>
<td>Jim McCalley, Iowa State University</td>
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<td>1:30-1:45</td>
<td>The Technical Talent Challenge</td>
<td>Wanda Reder, S&amp;C Electric</td>
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<td>1:45-2:00</td>
<td>The Iowa Workforce in Electric Energy</td>
<td>Mark Douglas, Iowa Utilities Association</td>
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<td>2:00-2:15</td>
<td>Workforce Issues for Municipal Utilities</td>
<td>Bob Haug, Iowa Association of Municipal Utilities</td>
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<td>2:15-2:30</td>
<td>Workforce Initiatives at Dairyland Pwr Coop</td>
<td>Ed West, Dairyland Power Cooperative.</td>
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<td>2:30-2:45</td>
<td>Training Technicians for the Wind Power Industry</td>
<td>Harold Prior, Iowa Lakes Community College</td>
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<td>2:45-3:00</td>
<td>Thermochemical Technologies for Electric Power and More</td>
<td>Robert Brown, Iowa State University</td>
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<td>3:00-3:30</td>
<td>Break</td>
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<td>3:30-4:15</td>
<td>Break-out sessions</td>
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<td>Breakout group 1, Room 275: Increasing the workforce</td>
<td>Jennifer Watson, MidAmerican Energy Company</td>
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<td>Breakout group 2, Room 204: Training &amp; retraining technicians and operators</td>
<td>Bill McAnally, Iowa Central Community College</td>
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<td>Breakout group 3, Room 208: “Energizing” engineering education</td>
<td>Mike Nickeson, Alliant Energy</td>
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<td>4:15-5:00</td>
<td>Reporting back</td>
<td>Assigned leader for each session.</td>
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<td>5:00-5:15</td>
<td>Funding opportunities</td>
<td>Allison A. Rosenberg, Iowa State University</td>
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<td>5:15-5:30</td>
<td>Following up</td>
<td>Jim McCalley, Iowa State University</td>
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As You Listen to the Talks, Jot Down…

1. **Today**: What are Iowa’s energy-related workforce problems today? How do we obtain data to characterize them? What will it take to solve them?

2. **Vision**: What is your own vision of Iowa’s energy future? Where do you want it to go?

3. **Future**: What educational/training infrastructure, partnerships, programs, and curricula need to be created to enable this vision?

4. **Action**: What is the composition of groups necessary to address each need, and what are next steps?
From US Census Bureau,
www.census.gov/population/www/projections/statepyramid.html
From ISU Enrollment Statistics www.iastate.edu/~registrar/stats/
A Good Articulation of Today’s WF Issues

“High-wage employment opportunities with established career pathways are awaiting American workers in the energy industry, but first, some key workforce challenges must be overcome. Now, and over the next few years, the public workforce investment system, private industry, the education system, and the entire energy community must work together to address the following challenges:

• the aging of the energy workforce and the lack of highly-trained workers in the pipeline to replace them;

• outdated misconceptions about careers in the energy sector;

• the lack of energy training and education programs due to elimination of programs during the recession of the early 1990s;

• the demand for workers with higher levels of science, technology, engineering, and mathematics skills;

• and the need for industry-recognized credentials and better career pathways for workers in the energy industry.”

- Emily DeRocco, Assistant Secretary Of Labor, Employment And Training Administration, U.S. Department Of Labor, Nov 6, 2007 Testimony before the Committee On Energy And Natural Resources, U.S. Senate, on the Domestic Energy Industry Workforce