

Minnesota Energy Consortium



Presentation to the Greater Minnesota Environmental Trust

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Baby Boomers = Retirements

- The issue.....
 - Approximately 15,000 “energy workers” in the state....
 - Retirements are on the horizon!
 - Xcel Energy – 50% of workforce could retire within 7 years
 - Minnesota Power – 44% could retire now!!!!
 - Northern Natural Gas – average age of their workers is over 50+
 - Other states are in the same situation.....



Current difficulties...

- Companies are having a hard time finding qualified workers
- Industry awareness
- Competition with other industries
- Demographics – availability of workers
- New technology – it is always changing!
- Finding/developing programs that will help groom a younger employee to become cross-trained and well rounded



The Consortium....

- Winter 2006 - the “grass roots” Minnesota Energy Consortium formed
- Currently led by industry co-chairs from Xcel Energy and Minnesota Power-Allete
- Approx. 100 Members strong representing:
 - Industry
 - Minnesota State Colleges and Universities (MnSCU)
 - Government Entities



Energy Consortium Mission

- The Energy Consortium provides a connecting point for the energy industry, government, and higher education to work together to pursue actions that will meet the immediate and future needs of the energy industry workforce.



Example Education Partners

- Alexandria Technical College
- Minnesota State Community and Technical College
- Lake Superior College
- Minnesota West Community and Technical College
- Saint Cloud Technical College
- Dakota County Technical College
- Century College
- MnSCU Office of the Chancellor



Example Industry/Government Partners

- Xcel Energy
- Minnesota Rural Electric Association
- Dakota Electric
- Northern Natural Gas
- Minnesota Power
- Department of Employment and Economic Development (DEED)
- Governors Workforce Development Council
- MN Dept of Labor



- If you don't change your direction, you will end up exactly where you are heading.
 - Ancient Chinese Proverb



National Initiative

Center for Energy Workforce Development

- Mission – *Build the alliances, processes, and tools to develop tomorrow's energy workforce*
- <http://www.cewd.org/>
- Driven by the utility industry and their associations – Started Spring of 2006
- 21 states now have a recognized consortium



Consortium Activities...

- Hosted an Energy Summit
 - Fall 2006 event - 100 attendees
 - Gleaned information on workforce needs
 - Science and math (biology and chemistry)
 - Electro-Mechanical Skills (hydraulic, pneumatics, controls)
 - Mechanical Applications (welding, machining, print reading, CAD)
 - Writing Skills
 - Computer Skills
 - Project Management



Consortium Activities....

- Pathways to Careers in Energy Industry
 - High School curriculum development
 - Video production
 - Features actual employees
 - Targeted at youth – high school primarily
 - Video vignettes of engineers, technicians, wind energy operator, gas transmission technician, and line-workers



Consortium Activities.....

Core Curriculum Development

- Through grant money provided by the Governor's Workforce Development Council and MnSCU, a study was commissioned to identify core curriculum needs for power generation functions such as:
 - Operations
 - Maintenance
 - Instrumentation and control
 - Electrician
- General Physics was the primary contractor
- Final Report presented on September 2008

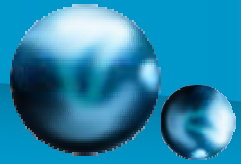


“Core Curriculum” Study

The following energy industry segments were included in the study:

- Coal and Natural Gas-Fired Electrical Power Generation
- Wind Power
- Solar Power
- Ethanol Production
- Biodiesel Production
- Natural Gas Distribution

In summary – There were commonalities!!



Department of Labor Grant

Energy Technical Specialist Degree Project

\$1 Million Award - DOL High Growth Job Training Initiative

- 9 MnSCU institutions
- 1st program of its kind
- Officially approved and kicked off – Fall 2009
- A.A.S. degree + specialty certificates
 - Wind Power, Solar Power, Ethanol, Biodiesel, Fossil Fuels, Power Generation, (Nuclear??)



Another Example Project.....

- \$170,000 **Solar Thermal Training Grant** – Awarded to Alex Tech and Solar Skies Manufacturing
- Funding Source – WIRED Grant – Minnesota Renewable Energy Marketplace
- February 2009 – June 2010
- Develop and deliver non-credit curriculum modules for the incumbent workforce
- “Mind-Share is Market-Share”



- Opportunity is missed by most because it is dressed in overalls and looks a lot like work
–Thomas Edison



THANK YOU

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