Cloud County Community College Wind Energy Technology Program

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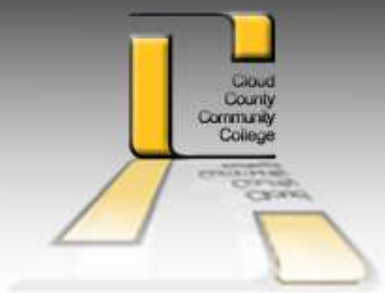

U.S. Wind Energy Outlook

- Wind is emerging as leading renewable energy source
- To meet 20% Wind by 2030 goal:
  - 1500 new technicians per year
  - 2300 new construction workers per year
  - 1600 new manufacturing workers per year
- 100,000 MW installed in next ten years – 1 MW will power 250-300 homes

Program History

- Kansas Board of Regents approved in 2004
- 1 yr certificate and 2 yr AAS Degree
- Working with AWEA on standards for wind techs
- Fall of 2009 - 110+ students
- Four full time wind energy instructors

Coursework

Introduction to Wind

Electrical Theory

Hydraulics

Mechanical Systems

Electronics

Electric Motors/Generators/PLCs

Substation/Voltage Regulation

Data Acquisition & Communication

Airfoils and Composites

Field Training / Projects

Met Tower Construction

Wind Turbine Construction

Tower Rescue Training

Bolt Training / Certification


Zond

Program Future

Plans to install 4 wind turbines that will provide direct practical training *and* enough electrical energy to offset the Concordia campus HVAC and lighting systems annual consumption.

Nordtank 130 kW

Northwind 100 kW (2)

Zond 750 kW

Nordtank 130kW

Northwind 100kW

Zond 750kW Turbine Donated by Westar Energy

Program Future

- Expand into new Wind Energy Technology facility with classroom, lab, and shop space
- Add additional Faculty and resources to instruct Assessment and Development Certification
- Implement Blade Technician Certification
- Establish articulation agreements with other schools and industry partners to facilitate sharing of resources and internship opportunities for students




Thank You

Cloud County Community College Wind Energy Technology

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