

Colby Community College

“Get a Jump Start!”





CCC Wind Energy Journey

1. Partnerships
2. Course Development
3. Media Development
4. Funding

1. Wind Energy Partnerships

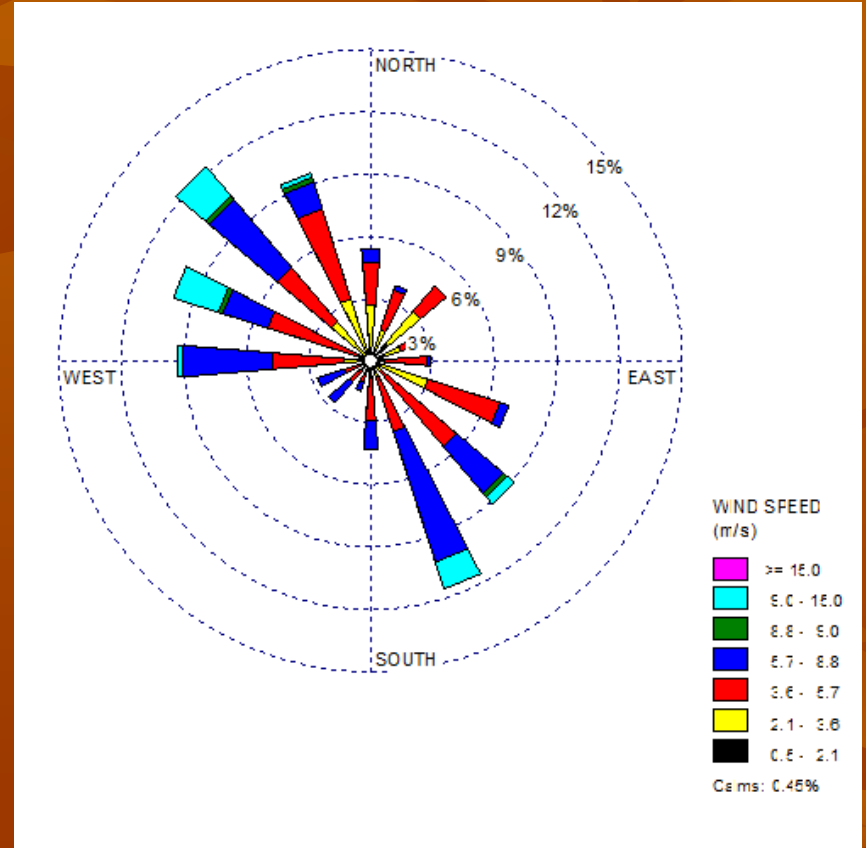
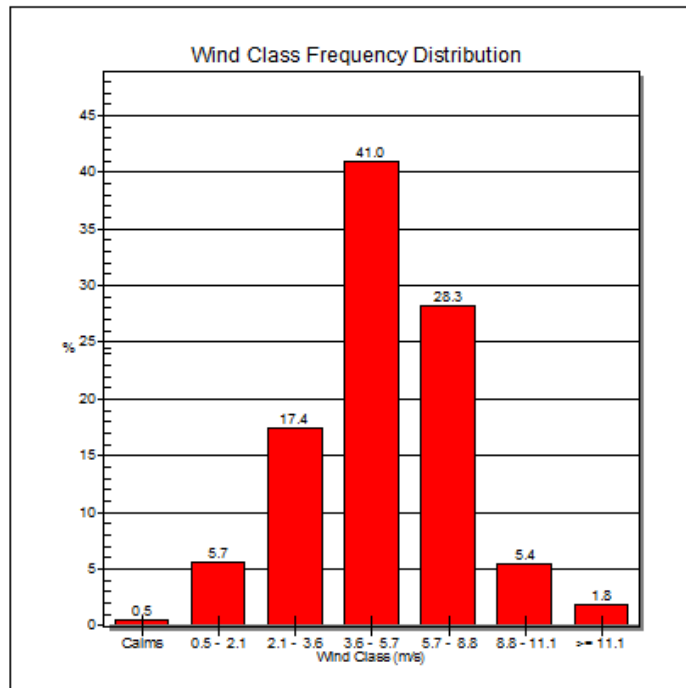
- Wind for Schools Program
 - Accepted Spring 2009
 - Different Twist
 - (7) local high schools participating
 - Spring 2010 construction

Anemometer Tower

- Partnership K-State, Midwest Energy, KSU Extension Service
- July 2009
- KSU students
- Use

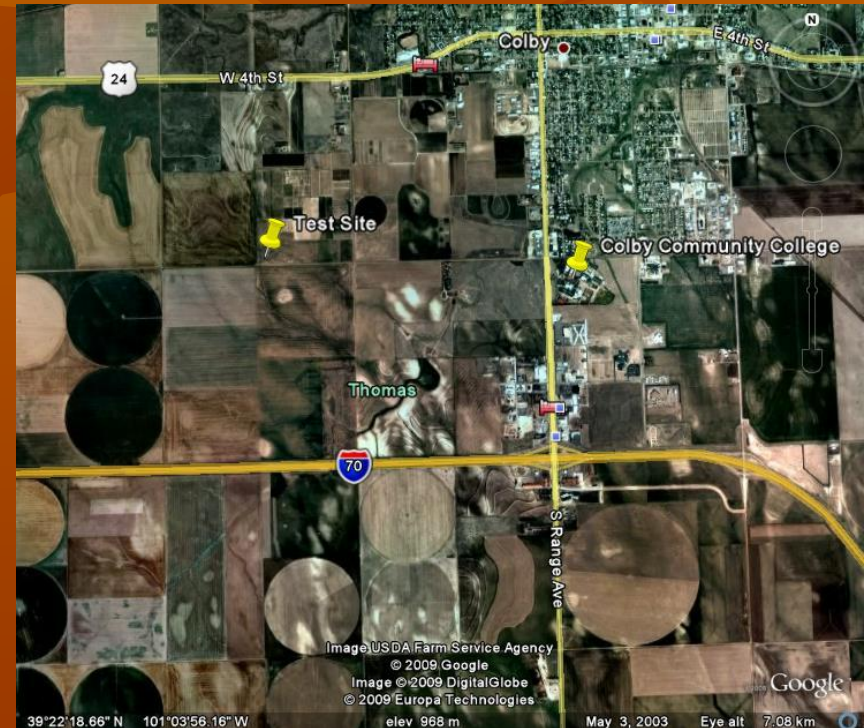


NRG Data



Regional Small Wind Turbine Test Site

- Partnered with K-State, Midwest Energy, KSU Extension Service
- Proposal NREL 12/8/09
 - (4) Regional Test Centers certify small wind turbines



NWKS Regional Energy Collaborative

- Dan Hartman
 - (2) years ago
- Collaborative group of (18) counties
- Educate/promote wind energy development
 - Wind Energy Conferences
 - April, 2009
 - April, 2010



Practical Landowner Information On Wind Energy

Colby Community College, Cultural Arts Center

April 3, 2009...Friday
10:00 am to 1:30 pm
Lunch will be provided

Speakers:

- Dan Hartman, Facilitator of NW KS Energy Collaborative & Economic Development Director, Logan County
- Don Teske, President, Kansas Farmers Union
- Bob Crangle, NWKS Collaborative attorney
- Jennifer O'Hara, Lincoln county attorney
- Mike Irwin, Farm Bureau Legal Foundation
- Dan Nagengast, President, Kansas Rural Center

Topics:

- Information pertinent to landowners in NW Kansas
 - Lease arrangements
 - Agricultural Implications
 - Community Wind

Fee: \$10.00 *This will be excellent information, don't miss it!*

Further Information:
Barry Kaaz
Colby Community College
785-460-5429

Preregister at www.colbycc.edu/
Or
Contact Kathy Cayton at 460-5413


**COLBY
COMMUNITY COLLEGE**
1255 South Range Colby, KS 67701
www.colbycc.edu

Private Industry/Governmental Partnerships

- Acciona
 - Wind Energy
- WinSoHy
 - CAES
- Colby Implement (John Deere)
 - Wind Energy
- Woofter Pump & Well
 - Geothermal
- Kansas Sierra Club
- United States Air Force Academy
- Numerous letters; county commissioners & economic development directors

2. Course Development

- AE176: March, 2010
- Intro: Wind, Solar, Geothermal, BioFuel
- (3) hr in Fall, 2010

Renewable Energy Initiative

Introduction to Wind & Alt. Energy Course AE176



When: March 15-March 19, 2010

Where: CCC Campus, Bedker Memorial Complex, room 710

What: (1) Credit Hour Course

- Wind power big & small, solar power, geothermal, biofuel/bioenergy, magnetic generation
- Guest speakers with presentations and field trips
- First evening: Large wind turbines & community wind, power purchase agreements
- Second evening: Small wind turbines
 - Horizontal, vertical, cost
 - Installation
 - Net-metering
 - Federal and state tax incentives
- Third evening: Trip to Oasis Travel Center, Colby, for geothermal presentation
 - Hydroelectric generation
- Fourth evening: Biofuel, biomass, bioenergy: Fast-food power!
 - Animal waste power!
 - Switch grass & town dump power!
- Fifth evening: Power of magnetism to power your home


More Information: Contact Tom Moorhous at 785-460-5534 or

Barry Kaaz at 785-460-5429

Course Development (cont)

Associate of Science Alternative Energy


Associate of Science:
Alternative Energy



Alternative Energy graduates have opportunities in business and industry related to energy, green technologies construction, and many additional fields. The curriculum gives the students a broad based comprehensive education to prepare for transfer. Graduates are exposed to a broad background in science and energy.

Suggested Program of Study

| Number | Course Name | Cr. |
|---|---|-----------|
| Orientation | | |
| SO100 | Student Success Seminar | 1 |
| General Education Component | | |
| <i>Written / Oral Communication 9 hours</i> | | |
| EN176 | English Composition I | 3 |
| EN177 | English Composition II | 3 |
| SP176 | Public Speaking | 3 |
| <i>Natural Science and Math 8 hours</i> | | |
| CH176 | Fundamentals of Chemistry with Lab | 5 |
| MA178 | College Algebra | 3 |
| <i>Social / Behavioral Science 6 hours</i> | | |
| Social Behavioral Science - Gen. Ed. | | |
| Social Behavioral Science - Gen. Ed. | | |
| <i>Arts / Humanities 6 hours</i> | | |
| Arts/Humanities - Gen. Ed. | | |
| Arts/Humanities - Gen. Ed. | | |
| <i>Health / Physical Education 2 hours</i> | | |
| Physical Education - Lifestyle | | |
| Physical Education - Skill | | |
| Additional Math/Science/Business or Computer Science Component (22 hrs min) | | |
| Additional Transfer Hours | | 22 |
| Electives (14 hrs) | | |
| AE176 | Introduction to Wind & Other Alternative Energy | 3 |
| AE200 | Employability & Safety Skills | 3 |
| AE210 | Acquisition & Site Research & Selection | 1 |
| AE220 | Foundation & Site Preparation | 1 |
| AE230 | Financial Analysis | 1 |
| AE250 | Wind Tower Construction | 1 |
| AE240 | Data Stream Analysis | 1 |
| BU142 | Theory of Leadership in Business | 3 |
| Minimum credit hours to graduate: | | 62 |



- 47 -

- Wind for Schools
 - SkyStream 3.7 Construction
- Online Courses
 - Intro to Wind
- Project Management
 - Alternative Energy
 - Design, Install , Manage

3. Media Education

Media



For optimal viewing, please right click on the links below and save to your computer to listen.

Podcasts:

[Wind Energy](#)

[Energy Efficiency Technology](#)

Videos:

[Governor Parkinson on Transmission](#)

[Governor Parkinson talks on last 10 years](#)

[Governor Parkinson talks on Individual Wind](#)

[Michael Eckhart ACORE Transmission and Solar](#)

NWKS Regional Energy Collaborative Videos Featuring Dan Hartman

[Part 1: Overview](#)

[Part 2: Knoll-Burlington Transmission Line](#)

[Part 3: CAES Systems](#)

[Part 4: Northwest Kansas Development](#)

[Part 5: Northwest Kansas Wind Center](#)

Scout Powwow



4. Funding

- Kansas Board of Regents Technology Grant
 - \$33,000
- Title III Online Course Development
 - \$1.8 million
- Kansas Department of Commerce
 - Recent \$6 million award