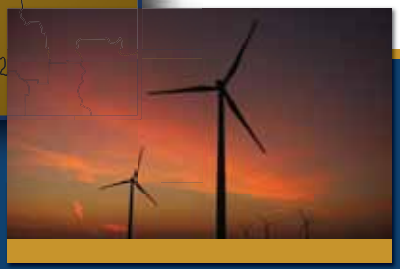
Idaho Wind Resource

Turbine useful clean power wind farms electricity energy savings generate Megawatts



CAES, INL and Wind

Located in Idaho Falls, Idaho, the Center for Advanced Energy Studies is playing a key role in collecting and analyzing wind data.

The CAES research facility includes a renewable energy test bed currently focused on collecting and tracking from two different wind systems, a Skystream and a vertical-axis, tilt-rotor turbine designed by the Blackhawk Project, LLC.

CAES is a research collaboration between Idaho National Laboratory and the three Idaho research universities – Boise State University, Idaho State University and the University of Idaho.

Learn more at www.caesenergy.org.

INL supports Wind Powering America, a federal program committed to dramatically increasing the use of wind energy in the United States.

There are many facets to this initiative, including the anemometer loan program. Through this program, wind anemometers are loaned to various entities and installed at promising sites. Wind data is collected and analyzed at a site for at least a year to help determine if it is feasible and cost effective to install turbines there.

INL collects and displays anemometer data for Idaho, Utah and Vandenberg Air Force Base at http://www.inl.gov/wind/idaho.

Renewable Energy

The Center for Advanced Energy Studies (CAES) and Idaho National Laboratory (INL) work with government, industry, universities and interested parties to better harness this abundant source of renewable energy.

CAES Center for Advanced Energy Studies

Wind for Schools in Idaho

In 2008, the U.S. Department of Energy, through its Wind Powering America initiative, introduced the Wind for Schools program in Idaho and five other states. The Wind for Schools program aims to install small wind turbines at K-12 schools, initially targeting rural areas, to demonstrate wind energy basics to both students and community leaders.

Four Idaho schools - Skyline High School in Idaho Falls, Jerome Middle School, Shelley High School and Pocatello Community Charter School – currently have turbines and are participating in the program. Four more school wind projects are expected to come online in 2010.

Boise State University was designated as Idaho's Wind Application Center by the Department of Energy. BSU's primary roles are:

- Implementing the Wind for Schools Program
- Coordinating the Idaho Wind Working Group
- Research energy forecasting and storage for grid-integration.

Learn more at
http://coen.boisestate.edu/WindEnergy/WfS

Wind Working Group

The Idaho State Wind Working Group was formed in conjunction with the Wind Powering America program to identify specific state concerns, barriers, and obstacles to wind development in Idaho. The working group is a collaboration of government agencies, nonprofit organizations, businesses, and industries interested in wind development. It is currently coordinated by Boise State University.

http://coen.boisestate.edu/WindEnergy/WindWorkingGroup.asp

Idaho Office of Energy Resources
The Office of Energy Resources is responsible for energy planning, policy and coordination in the state of Idaho. The agency's goal is to communicate Idaho's energy policies to stakeholders and provide the public with the information needed to help meet the state's future energy needs.

www.energy.idaho.gov

13th
Idaho's national ranking for its potential to generate electricity from wind.

163
Number of megawatts currently installed in Idaho.

20,000
Number of megawatts many experts estimate Idaho could generate from wind.

Idaho's wind energy resources include:

www.ridgelineenergy.com — Ridgeline Energy LLC is investing in wind throughout Idaho on both public and private land, primarily along the Snake River Plain. Ridgeline developed the 65-megawatt Wolverine Creek Wind Farm east of Idaho Falls. It also is constructing the 120-megawatt Goshen North Phase II wind farm in eastern Idaho.

www.eaglerocktimber.com — Eagle Rock Timber has worked as the general contractor on several wind projects, performing tasks including providing all inventory control, mechanical connection, receiving & unloading of components and erecting, cleaning & commissioning of wind turbine generators.

www.isu.edu/estec/ — The Energy Systems Technology and Education Center (ESTEC) at Idaho State University, a CAES partner, offers a wind engineering technology degree. The two-year program prepares students to work in the wind energy industry as technicians who can install and maintain turbines.

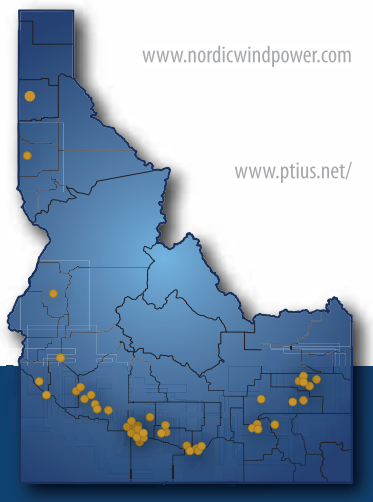
www.blackhawkproject.com — The Blackhawk Vertical Axis Wind Turbine incorporates simple mechanisms to perform complex physical functions-rotating and tipping and teetering-- based on helicopter rotor design theory. Invented and developed in Idaho, Blackhawk is partnering with CAES to demonstrate this patented breakthrough in small-wind technology. Blackhawk is currently seeking a manufacturing partner.

www.ametinc.com/windtower.htm — Advanced Manufacturing Engineering Technologies (AMET) is a proven provider of automated welding systems and support welding to meet critical requirements and efficiently manufacture wind towers with multi-head, multi-process and multi-wire systems.

http://agriculture.csi.edu/wind/ — The College of Southern Idaho's innovative two-year wind technician degree program focuses on industrial safety, rigging and crane operations; electrical circuits, systems, motors, generators, and distribution; programmable logic controllers; and, wind tower, generation, and blade systems.

www.nordicwindpower.com — Nordic Windpower designs, manufactures and sells innovative, two-bladed utility-scale wind turbines for community and distributed wind markets. The company's N1000 turbine has the lowest installed cost of any similarly sized turbine on the market. Nordic's patented, teeter hub significantly extends mechanical life and lowers the cost of maintenance.

www.ptius.net/ — Premier Technology, Inc. began manufacturing operations in 1996 and has grown many fold in size since. It is known for its ability to supply high quality turnkey engineering, custom fabrication, system integration and field installation solutions to various industries, including energy and agriculture. Premier stands ready to support wind generation in Idaho.



Idaho's current and planned wind power projects. For more information about Idaho wind projects, go to www.energy.idaho.gov.