

Keeping Wind Energy Powered Up in Southern Idaho

By Lisa Buddecke, Southern Idaho Economic Development Organization

Green energy development is a growing piece of the economic development puzzle. Commercial energy production in any of the five renewable energy sectors can be an important added bonus to businesses looking to relocate or expand in key U.S. regions. Southern Idaho produces energy in four renewable sectors: wind, hydro, geothermal and biomass.

One of the region's sustainable energy sources comes from wind power. Southern Idaho's ideal geographic location, natural elements and weather pattern proves to be an ideal location for wind turbines, not only on farms and ranches, but miles across the windy Snake River Plain.

IDEAL LOCATION

Southern Idaho is a prime area for wind energy production sites. The region boasts an optimal average wind speed of about 13 miles per hour. Natural wind flow, consistent weather patterns and wide open spaces make the area ideal for wind turbines. With proximity to existing electrical infrastructure, exporting energy is more convenient. And since the majority of wind farms are scattered across unobstructed open plateaus, impact on the environment and residents is limited.

While hydroelectric power is the largest single source of energy supplied by Idaho Power at more than 47 percent in a typical year, nearly nine percent of the energy on their system comes from wind. Idaho

Power has a total of 33 wind projects – most located in Southern Idaho - under contract representing 728 megawatts of generation capacity. At the state level, the utility buys the output from 25 wind projects representing nearly 570 megawatts of capacity under contracts mandated by the federal Public Utility Regulatory Policies Act (PURPA).

“Idaho Power customers pay for the electrical output from these PURPA qualifying facilities, which is added to our electrical grid,” said Michael Darrington, energy contracts leader with Idaho Power.

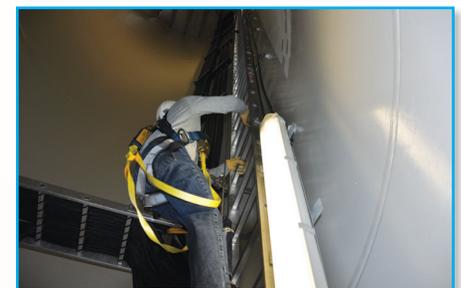
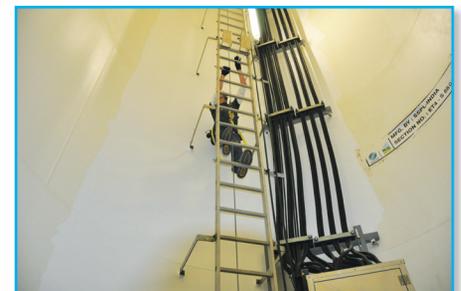
GREEN TALENT

An equally important side of wind energy production is keeping these projects up and running. This requires trained, skilled workers in wind technology. Local College of Southern Idaho (CSI) created the state's first wind energy program in 2008 and has secured top-notch instructors and campus facilities to offer some of the best wind technology curriculum and hands-on experience in the western U.S.

“We really understand the importance of tailored courses and direct access to wind turbines to adequately train for this highly specific industry sector,” said Eli Bowles, renewable energy and industrial systems technology instructor at CSI. “Our students can learn about small scale residential and farm projects all the way up to maintaining large industrial turbines. When they leave our program, they are ready to take any

wind technology job in the country. Fortunately, most of them stay right here in Southern Idaho to support the numerous projects in our region,” he said.

Much of the curriculum is specifically designed to meet the needs of local wind partners. Many in the industry have stressed the need for extensive electrical training, so CSI covers much of that in the first term of the program.



College of Southern Idaho students practice climbing 33-foot ladders to simulate work on a real wind turbine.

Safety while working from tremendous heights is also a mandatory skill required for all CSI Wind Energy Students. Thanks to the numerous small and large scale wind turbines around Southern Idaho, CSI works



College of Southern Idaho students practice on-site at one of the region's numerous wind turbines.

with nearby wind park owners to allow CSI students direct access to turbine towers to practice climbing and safety skills.

"Giving our students the opportunity to climb up 300 feet on a wind turbine tower really transfers what they've learned in the classroom to the real world," Bowles said. "This level of practical experience is vital to the future success these students have in the workplace. This is an opportunity not many other programs in the country can offer. That's a huge advantage to employers when they're looking to hire skilled workers."

Before tackling these great heights, students can practice safely indoors on CSI's Ladder Training Apparatus (LTA). Once they strap on helmets, harnesses and safety glasses, they're ready to climb up two 33-foot ladders attached to the wall. Safety training instructors are always on hand to assure students check and recheck their equipment before any climb.

"Our LTA offers students the ability to practice working above ground in a safe environment. Here, we can deal with potential critical mistakes under the safest of circumstances," Bowles explained.

A 145-foot, eight-ton wind turbine blade lies lengthwise in a nearby lot to offer even more extensive instructional value: showing

students its interior and ability to fasten on apparatus. The blade was provided by Suzlon Corporation and cost CSI \$10.

MEETING INDUSTRY DEMANDS

As developers continue to look at Southern Idaho as a potential site for future utility-scale wind development, they will be able to quickly fill positions by hiring locally

trained and educated workers to service their projects. With access to plenty of wind, open land and ready-to-work employees, Southern Idaho is a "wind-win" situation for future wind development projects. 🏠



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