

SD WIND

Bi-Weekly newsletter from South Dakota Wind Application Center

- Steve Wegman, Executive Director of the South Dakota Wind Energy Association has an informative interview on wind energy in South Dakota. To listen, follow the link: http://www.windpoweringamerica.gov/filter_detail.asp?itemid=2358
- A link to New Educational Content from EIA has been placed on the [Learn](#) portion of our website: <http://wac.sdwind.org/learn>

Notes..

Bradley J. Schmidt, PE

Sr. VP Trans. & Distr. Services, Cass County Electric Coop. Inc.

Wind energy on the Dakota prairies is surely not a new-found secret by any means. Our ancestors long-ago learned of the power in wind and through early innovations designed crude, but effective systems to harness that power. To this day, there are remnants of their efforts that can be seen in the more remote rural areas.

As technology has evolved, advancements in capturing wind energy have renewed the enthusiasm for wind as a viable energy source for our energy-intensive lives. Commercial wind production in North Dakota has boomed in recent years as turbine sizes have increased from less than a megawatt (1,000 kilowatts) to the now-standard 1.5 MW (1,500 kilowatt) machines.

Along with an increase in size has come an increase in reliability of the machines themselves. Reliability in the high 90+% range is not uncommon for commercially produced generators. Also a positive for wind production is the above-estimated production of energy achieved with commercial projects. In the early design stages of the first commercial projects, estimates of 40% capacity factors were hopeful; those values have been exceeded and sometimes reach 50+%! This is an important factor for wind energy to become not only a viably energy source, but an economical energy source.

Of course, the most challenging aspect of wind energy remains its variability. A challenging engineering feat remains how to capture and store wind energy in some alternate form of energy in an economical fashion; but just as engineers solve the problems of early wind production systems, so too they will work to solve the problems of modern-day energy generation systems.

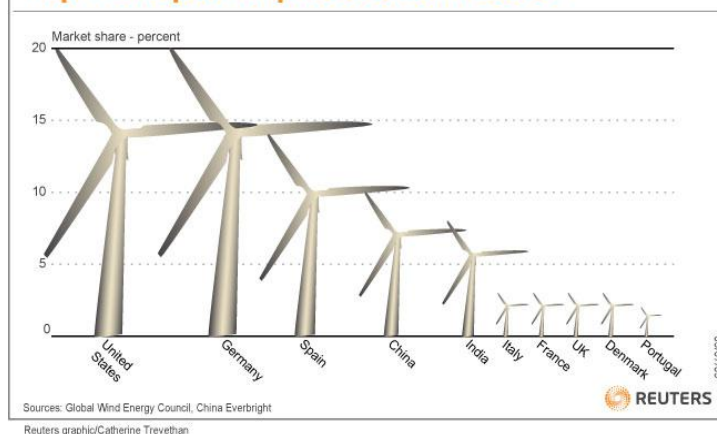
@ SDSU WAC

There is collegiate lecture material the SD WAC has created. These lectures are full of short videos, downloadable notes, and summaries of similar classes. You may see these short lectures at the following link: <http://wac.sdwind.org/lectures>.

Fun Fact

Top Wind Power Producers

Top wind power producers in 2008



Source: http://graphics.thomsonreuters.com/079/GLB_WIND0709.jpg

News Clip

New Grant Funding for Green-related Projects

With \$150,000 in new grant funding designated for projects that integrate green-related topics and experiences into the classroom, the National Education Association (NEA) Foundation is growing its Learning and Leadership and Student Achievement grants program for individuals and teams of educators. Public school teachers are eligible to apply for individual grants worth up to \$5,000 for development and implementation of ideas, techniques, and approaches for teaching green concepts. The first application deadline is October 15, and the first grants are slated to be awarded in January 2010. The NEA Foundation will award two more rounds of green grants in 2010, with deadlines for applications falling on February 1 and June 1.

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Reference: <http://www.neafoundation.org/pages/educators/grant-programs/nea-foundation-green-grants/>