

The Oklahoma WinCharger

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Oklahoma Wind Power Initiative

A collaborative project between the University of Oklahoma and Oklahoma State University based at the

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Sleeping Bear: Oklahoma's 5th Wind Project

Fort Supply, in Harper County, is seeing extensive wind development these days. Turbine blades and tower sections can already be seen in the area because of OG&E's Centennial Wind Farm. Announced on October 18, Sleeping Bear Wind Project will be the newest wind farm in Oklahoma. The 94.5 MW project will produce enough power for nearly 30,000 homes and is expected to be operational by spring 2007. Chermac Energy Corporation developed the Sleeping Bear project while Edison Mission Group will own and operate the facility. Public Service Company of Oklahoma (PSO) will purchase the electricity generated from the project and will continue to be the largest purchaser of wind energy in the state. Total installed capacity in Oklahoma will be 689 MW upon the completion of Centennial Wind Farm and Sleeping Bear.

Wind Power Installation reach 10,000 MW in the United States

AWEA announced on August 14 that U.S. wind energy installations now surpass 10,000 MW, which is enough electricity to power over 2.5 million homes on a typical day. "Wind energy is providing new electricity supplies that work for our country's economy, environment, and energy security," said AWEA Executive Director Randall Swisher. "With its current performance, wind energy is demonstrating that it could rapidly become an important part of the

nation's power portfolio." A growing demand for wind power, concerns over fuel price and an extension of the production tax credit are reasons for the record growth.



Photo courtesy of Mr. Todd Spink

Installation of wind farms has grown fivefold since 1999, and now more wind power is being installed in one year than the total installed amount in the country in 2000 (2,500 MW). As the wind industry continues to grow, the U.S. will see many benefits. There are economic benefits such as an extra supply of electricity for the U.S., and with the industry growing this opens up more job opportunities. The wind industry also brings environmental benefits such as decreased global warming gases and better air quality. Wind power also aids in energy security; it reduces natural gas consumption by 3.5% and is also a domestic and renewable energy source.

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1204.

2006 Farm Bill Workshop is a Success!

The 2006 Farm Bill Workshop, hosted by the Oklahoma Wind Power Initiative and the Oklahoma Renewable Energy Council, was held October 18 at Oklahoma State University's main campus in Stillwater. After a catered dinner, attendees listened to presentations from experts in renewable energy, legal counsel, and Section 9006 procedures. Steve Stadler from OSU and OWPI began the evening by discussing wind energy applications in Oklahoma. Pam Speraw with Sun City Energy Systems continued the evening by talking about the power of the sun and the advantages of solar energy. Terry Detrick, from the Oklahoma Farmer's Union and Oklahoma Sustainable Energy, LLC., told the audience about the benefits of ethanol and the experiences he and his company have had in developing their ethanol plant in Enid, OK. In almost every renewable project there are legal issues. Shannon Ferrell, an environmental lawyer with Hall Estill, P.C., discussed the legal issues that need to be considered when developing a project. Finally, Jody Harris from USDA Rural Development gave an overview of the Section 9006 Program. Section 9006 of the 2002 Farm Bill gives farmers, ranchers, and small rural businesses an opportunity to receive funding for renewable energy projects or energy efficiency projects.

All of the above presentations can be found on OWPI's website at www.ocgi.okstate.edu/owpi under the "2006 Farm Bill Workshop" link. For more information, please contact Stephanie Buway at (405) 447-8412 or Jody Harris at (405) 742-1000.

Section 9006 Awards \$17.5 Million to Renewable Energy Projects in 36 States

USDA secretary Mike Johanns has announced the awarding of over \$17 million in Section 9006 grants to recipients in 36 states. The Section 9006 Renewable Energy and Energy Efficiency Program promotes energy independence through the funding of renewable resources and improved efficiency for existing systems. Funds from the grant program can be applied toward up to 25% of the project cost. The program also provides loans which can cover another 25% of costs. Eligible projects

are energy systems utilizing wind, solar, hydrogen, biomass, or geothermal sources. "These grants will directly promote energy savings and increased energy production in rural America," said Johanns.

For more information on the Section 9006 Program from the 2002 Farm Bill, visit www.rurdev.usda.gov/rbs/farbill. The complete list of recipients can be seen at www.farmenergy.org/9006GrantRecipientsfor2006.pdf

Editor's Note: The above is a summary from Renewable Energy Access, September 6, 2006.

Rural Energy for America Program (REAP) Introduced

Senator Tom Harkin (D – IA) has introduced the Rural Energy for America Act of 2006, a bill designed to commit federal resources to the development of farm energy. The legislation builds upon Section 9006 by raising federal funding by the year 2012 to \$250 million annually. Most importantly, the bill allows the USDA to structure grants as production incentives rather than construction grants, which avoids conflict with the Production Tax Credit by voiding its benefits. Also included is a rebate program for smaller farms and businesses for relief from high energy prices.

Editor's Note: The above is a summary from Renewable Energy Access, September 19, 2006.

Renewable Legislation Gaining Momentum on Capitol Hill

A number of Congressional bills concerning renewable energy have put the spotlight on the rising popularity and acceptance of alternative energy, experts say. Bills have been introduced this year providing support for wind, solar, biofuels, hydroelectric, and geothermal power. Given that 2006 is an election year, and with a number of pressing issues before legislators, experts caution that none of the current proposals are likely to be passed before Congress ends its current session. Karl Gawell, Executive Director of the Geothermal Energy Association had the following to say: "There was a lot of talk this year about passing an energy bill. But when Congress came back from summer recess, they looked at the number of days left on the calendar and decided to back away."

Many are still confident that Congress intends to address renewables next year, however. "Bipartisan support for renewable energy is increasing," said Bill Holmberg, Chairman of the Biomass Coordinating Council. "It's not as strong as it ought to be, but support is increasing and I think you will see some serious progress in the coming years."

Editor's Note: The above is a summary from Renewable Energy Access, September 15, 2006.

2003 Kansas Heat Wave Couldn't Stop the Wind

A study carried out by Spectrum Technologies for the Kansas Chapter of the Sierra Club showed that power from wind farms could have aided in

keeping up with high electricity demands during the summer of 2003 in Kansas



Photo courtesy of blueridgemuse.com

City. The study was conducted because Kansas utilities were worried about the ability of wind power to be there when it was needed most. In the study, the "tall tower" wind data was analyzed at a height that compares with the large turbines used on wind farms in the Plains states. The sites used in the study were in Kearny, Logan, and Ellsworth Counties. The outputs modeled of the 1.5-MW General Electric wind turbines revealed that on the hottest days in July and August the stronger winds were present.

The spokesman for the Kansas Chapter, Brooks Albery, said, "This study indicates that wind power could greatly reduce the need for high-cost natural gas and purchased power now used to meet high loads on hot days." AWEA Communications Specialist Susan Williams Sloan praised the Kansas Sierra Club for its studies, "We applaud the Kansas Sierra Club for documenting how well wind energy can work for Kansas. This information supports Governor Sebelius's goal of getting 1,000 MW of wind power in Kansas providing cost-effective, clean, home-grown electricity."

To view the entire study, visit kansas.sierraclub.org.

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1200.

EPA Goes 100% Green



The United States Environmental Protection Agency (EPA) has signed an agreement with 3 Phase Energy Services to purchase 100 million kWh of renewable energy certificates (RECs). RECs, which are credits that can be bought, sold or traded, are created when renewable electricity is delivered onto the grid. With this contract, the EPA is the first federal agency to offset 100% of their energy consumption at all of the agency's facilities nationwide by purchasing almost 300 million kWh worth of RECs. EPA Administrator Stephen L. Johnson made it known that, "at EPA, we don't just talk the talk, we walk the walk."

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1208.

Xcel Customers to Save Millions

A recent study by the Interwest Energy Alliance projected that Xcel Energy customers will save more than \$251 million in the next twenty years. "The study shows that wind has been and remains one of the most important hedges that consumers can enjoy against fossil fuel volatility," IEA Executive Director Craig Cox stated. Jane Pater and Ron Binz, the authors of the study, compared existing and proposed wind projects to the cost of natural gas. The information they gathered from the comparison was used to predict the savings Xcel customers would have if Xcel had bought proposed wind projects. Xcel's reluctance in pursuing proposed wind projects was due to issues on the contractor's side. According to Tom Henley "Cost is the main thing," he said. "They just couldn't meet the terms of the contracts they signed." The IEA study showed that Xcel could add 263 MW, allowing it to reach a 15% wind level. According to Fred Hefley, manager of Baca Green Energy in Walsh, Colorado, "a 15% wind level would deliver even more cost savings to its consumers, along with significant environmental and economic benefits to the whole state."

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1205.

Greenhouse Gas Emissions Capped in California

A deal reached by Governor Arnold Schwarzenegger and the state legislature will see California become the first state in the country to regulate all greenhouse gas emissions. The legislation (Assembly Bill 32) requires major industries to cut the level of greenhouse gases to 1990 levels by the year 2012. To accomplish this, the bill calls for the California Air Resources Board to establish a market program allowing for the sale, purchase, and trade of emission credits among companies. A statement released by Schwarzenegger's office said that California "can now move forward with developing a market-based system that makes California a world leader in the effort to reduce carbon emissions."



Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1206.

FERC Modifies PURPA

The 1978 Public Utility Regulatory Policies Act (PURPA) has been modified under the Energy Policy Act of 2005 (EPAAct). Since its beginning, PURPA, has mandated that utilities purchase the electrical output of small energy production facilities, also known as qualifying facilities (QFs), as long as the power was sold for less than the utility's avoided cost of energy. QFs that have "meaningful access" to electrical markets no longer can expect utilities to be obligated to buy their power. The Federal Energy Regulatory Commission (FERC) now has the responsibility to determine what regions meet this new standard under the EPAAct legislation. Rob Gramlich, AWEA Policy Director commented on the final rule stating that "it appears to allow for a closer inspection of whether market access is truly available and

whether options exist other than selling to the local utility."

For more information and as well as the full text of the amendments, visit FERC's website at www.ferc.gov.

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1213.

Study on Transmission Issues Released by DOE

As mandated by the Energy Policy Act of 2005, the U.S. Department of Energy released the National Transmission Congestion Study, which analyzes generation ability and transmission capacity for the entire country. The study also highlighted areas in need of repairs or upgrades to improve efficiency and lower consumer costs. Of particular interest to advocates of wind energy is the designation of "Conditional Congestion Areas", or areas in the national grid where transmission of energy could become problematic if new generation plants are to be built as scheduled. Wind energy advocates have consistently emphasized the role of wind power in augmenting the existing system.

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1203.

Minnesota Wind Projects Receive Go-Ahead From FAA

Three wind farms in Minnesota have been given the go-ahead from the Federal Aviation Administration after it was verified that the projects would not interfere with air traffic control radar operations. PPM Energy, enXco Energy and Wind Energy Developers are the three companies that received approval for their projects. Senator Norm Coleman (R - MN), who announced that the projects could commence, stated that "hundreds of millions of dollars in wind development, much needed jobs in southwestern Minnesota, and abundant clean, renewable energy can now become a reality thanks to the FAA clearing the way." Earlier this year, numerous wind projects in other Midwestern states were halted due to the concerns of interference with military radar.

Editor's Note: The above is a summary from Contra Costa Times, Sept. 14, 2006.

Military Radars and Wind Farms Report

Earlier this year, several wind farms that were scheduled for construction in the Midwest were put on hold due to possible interference with military radar operations. Under the National Defense Authorization Act of 2006, a report on the effects of wind farms on military radars was required to be published no later than 120 days after the act was established. The report, titled "Report to the Congressional Defense Committees: The Effect of Windmill Farms on Military Readiness, 2006", was finally released on September 27. It can be accessed at www.defenselink.mil/pubs/pdfs/WindFarmReport.pdf

DOE \$2 Billion Loan Guarantee Program

U.S. Department of Energy (DOE) secretary Samuel W. Bodman recently announced a \$2 billion federal loan guarantee program to kick start investment in alternative energy technologies. Initially, loans will be offered to "early commercial products", or those technologies which are past the R&D stages but have yet to see full commercial use. Some of the wind energy technologies eligible include advanced wind power plants, testing facilities, wind or renewable-specific transmission lines, component manufacturing, and some community wind projects. Says Bodman, "we hope to spur investment in new renewable energy projects like solar and wind, as well as clean coal technologies and efforts that can convert cellulosic biomass into ethanol."

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1203.

Wind Power is a Potential Solution to Shrinking Gas Reserves

A recent report addressing the overestimates of oil and gas reserves has led the Global Wind Energy Council (GWEC) and Renewable Energy Systems Ltd. (RES) to suggest wind as a viable option that will make up for the fossil fuel shortages. The report notes that oil and coal reserves will decrease in the coming years with oil production peaking in as little as eight years followed by increasing prices. Cleaner coal used for electricity generation in the future still faces technological and economic barriers. Wind energy can help this energy crisis not only

because it is economically viable, but also because it is environmentally friendly.

Ian Mays of the RES Group commented that "Fossil fuels cannot sustain our expected growth in energy demand, and now low energy prices are gone forever. Wind power is very much ready to keep the lights on and fill the gap."

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1207.

Senator Jim Inhofe Visits Bergey Windpower

Senator Jim Inhofe (R – OK) toured Bergey Windpower's manufacturing facility in Norman, Oklahoma recently. Company president Mike Bergey extended an offer to Senator Inhofe recently at a meeting with the senator in Washington, D.C. Both discussed the need for a 30% investment tax credit toward the purchase of small-wind systems for farmers, ranchers, and other landowners. The public has strongly supported small-wind systems, but high initial costs have deterred all but the most serious buyers. Currently, language providing tax credits for small-wind systems is in two bills, HR 4716, sponsored by Representative Tom Cole (R – OK), and S 2571, sponsored by Senator Kent Conrad (D – ND).

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1206.

FERC Reforms Could Boost Wind Energy

FERC held a hearing on October 12th to consider reforming the Open Access Transmission Tariffs, which regulate the terms, conditions, and rates of electrical transmission for much of the U.S. Don Furman, Senior Vice President of PPM Energy and AWEA representative at the hearing said "the biggest impediment to investment in wind generation is the lack of adequate firm transmission capacity."

A current proposal would do away with a \$100/MWh penalty for deviations in real versus scheduled outputs. Also discussed was the proposal of two new services: conditional firm and re-dispatching generators, which are designed to better manage congestion and allow for long-term firm service. Natalie McIntire, representing the Renewable Northwest Project (RNP), spoke on the

technical aspects of conditional firm service and called for a stakeholder process to discuss potential design alternatives. Both the RNP and AWEA intend on participating in future developments.

Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1212.

Energy Awareness Month

October is National Energy Awareness month and the theme this year is "Energy Independence Depends on US - Choose Wisely, Use Wisely." To promote energy awareness, you can:

- Purchase energy-saving light bulbs
- Turn off lights when you are not in the room or house
- Carpool or ride your bike to work if possible
- Weatherstrip your windows
- Recycle paper, plastic, glass, and aluminum



Various organizations and agencies, such as the EPA, the Energy Star program, and the Department of Energy's Energy Efficiency and Renewable Energy program have more information regarding Energy Awareness Month on their websites.

Oklahoma Community Wind Guidebook Now Available

Wind energy can be used for small residential systems or for large commercial applications. There is also an option called "community wind". Community wind projects are often smaller than commercial operations; they can range anywhere from 1 MW to 20 MW. Most importantly, community wind developments are locally owned which means local residents have a stake in the actual project.

Spirit Lake School District's Community Wind Project



Photo courtesy of Spirit Lake School

This guidebook gives an overview of successful community wind projects across the country as well as identifies the major steps in the planning process of developing a community wind project. Everything from assessing the wind resource to discussing power purchase agreements is included in this guide. Barriers to a successful project are also given to illustrate the possible problems one may encounter when undertaking this kind of venture. It can be found on OWPI's website at www.ocgi.okstate.edu/owpi.

It's coming.....

The new year brings new ideas and new looks...

Distribution of the WinCharger

Electronic distribution of The Oklahoma WinCharger is available. To sign up to receive your copy of the WinCharger by e-mail, go to the OWPI website at www.ocgi.okstate.edu/owpi, click on the link on the left side that says "Subscribe to the Oklahoma WinCharger," and follow the instructions from there. Receiving your copy of the WinCharger by e-mail allows you to receive the newsletter faster and helps us keep our mailing costs down.

If you have recently moved or changed your e-mail address, please let us know. Address corrections or updates can be sent to Amy Hillenburg at Amy.N.Hillenburg-1@ou.edu or by phone at 405-447-8412. Thank you.

Calendar of Events

- Oct 23-25** **Fall Technical Workshop Western Roundup of Wind Integration**, hosted by the Utility Wind Integration Group. Sheraton Hotel, Oklahoma City, OK. For more information please visit www.uwig.org or email info@uwig.org.
- Nov 8** Meeting of the **Oklahoma Renewable Energy Council**, 10 am to noon, OK Department of Commerce, Gallery 1-2. See www.ocgi.okstate.edu/orec for more information.
- Nov 10-12** **Oklahoma Farm Bureau Annual Convention**. Tulsa Marriott Southern Hills, Tulsa, OK. For more information, please call (405) 530-2640 or visit www.okfarmbureau.org.
- Nov 16** **Oklahoma Rural Development Council (ORDC) Annual Summit**, hosted by the ORDC. Clarion Hotel, Meridian Convention Center, Oklahoma City, OK. For more information, please visit www.okrural.org or contact Ms. Barbara Albritton at (918) 584-7526.
- Dec 7-9** **Tulsa Farm Show**. Exposition Center - Tulsa State Fair Grounds, Tulsa, OK. For more information, please call (507) 437-7969 or visit www.farmshowusa.com.
- Dec 11-12** **Tribal Energy in the Southwest**, hosted by Law Seminars International. Indian Pueblo Cultural Center, Albuquerque, NM. For more information, please call (206) 567-4490 or visit lawseminars.com.
- Dec 13** Meeting of the **Oklahoma Renewable Energy Council**, 10 am to noon, OK Department of Commerce, Gallery 1-2. See www.ocgi.okstate.edu/orec for more information.

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