

# The Oklahoma WinCharger

Nov/Dec. 2006 (A Newsletter for Oklahoma Wind Stakeholders) Vol. 6, #6



## Oklahoma Wind Power Initiative

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

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## World's Largest Wind Farm Complete

AWEA's third quarter market report stated that a record 2,750 MW will be installed in the United States in 2006. In Texas, FPL Energy's 735-MW Horse Hollow Wind Energy Center contributes to this projected capacity for 2006 and has been recorded as world's largest wind farm.

AWEA's executive director, Randall Swisher, commented on the goal of strengthening energy security: "To strengthen our energy independence we need safe, domestic, and inexhaustible energy, and wind power provides just that. The U.S. wind energy industry is working all-out to meet current demand for new wind farms. But the nation needs a timely and long-term extension of the wind energy production tax credit (PTC) to allow companies to plan beyond 2007 and continue to build a strong and secure energy future."

Energy independence is now viewed as a top national security issue according to recent polls. Over half a billion cubic feet of natural gas is saved per day because of America's wind farms, plus the operation of wind power will increase the electricity supply, level out electricity costs and build up energy security.

Swisher commented, "Every megawatt-hour of domestic, inexhaustible wind energy from our heartland is a megawatt-hour that doesn't burn fuel and that strengthens our energy security, protects our environment, and creates good jobs."

In AWEA's quarterly report stated that 1,345 MW have been installed through October, which brings the total wind energy capacity in the U.S to 10,492 MW. This amount represents is enough electricity to power over 2.5 million homes. There are still 1,500 MW of capacity under construction that will be completed this year.

*Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1214.*

## Renewable Energy in Corporate America

Wells Fargo & Company purchased renewable energy certificates (RECs) to sustain 550 million kilowatt-hours of wind energy a year for three years. This will aid in the growth of renewable energy and help offset the emission of 380,000 tons of carbon dioxide each year.

The RECs are provided by a national renewable energy marketing and development company, 3 Phases Energy and the Center for Resource Solutions' Green-e® program certifies and verifies the certificates.

Kathleen Hogan, director of the Climate Protection Partnership Division for the U.S. Environmental Protection Agency, commented on Wells Fargo and their purchase: "Wells Fargo is a leading example of how corporate America can reduce greenhouse gas emissions associated with electricity use. Wells Fargo is now the top corporate purchaser among EPA's Green Power Partners to purchase clean, renewable energy. EPA applauds Wells Fargo for its purchase and hopes other U.S. corporations follow their lead."

Wells Fargo encourages the progress of renewable energy in business operations. They recently invested in a wind farm in Texas and helped finance the development of Leadership in Energy Efficiency and Design (LEED) buildings. In Phoenix, the cooling equipment in the Wells Fargo Plaza has been replaced with more efficient equipment to reduce energy consumption by 30 percent. Wells Fargo also has two ENERGY STAR buildings in San Francisco.

*Editor's Note: The above is a summary from Renewable Energy Access, Oct. 3, 2006.*

### **Wind Power on NYU Campus**

New York University plans to buy 118 million kWh of wind power renewable energy credits through Community Energy, Inc. The plans were set in action when NYU president John Sexton attended the Clinton Global Initiative. "Last month, I participated in the Clinton Global Initiative conference here in New York, where global warming was a key issue under discussion. It was a sobering dialogue, one that has caused me to think even more deeply about what role universities in general, and NYU in particular, should play in addressing the great challenges of our time, from climate change to extremist violence to poverty," said Sexton.

NYU's Executive Vice President, Dr. Michael Alfano, commented: "This purchase of renewable energy, our pursuit of greater conservation, and the promise of a more sustainable campus are institutional responsibilities,

consistent with our community's values and made more relevant by the Mayor's recent announcement of an ambitious environmental agenda for New York City, of which NYU wants to be a part."

*Editor's Note: The above is a summary from Renewable Energy Access, Oct. 10, 2006.*

### **Production Tax Credit Plays Important Role in Wind Industry**

The completion of a 24 MW wind farm in Lempster, New Hampshire is riding on whether or not the PTC will be renewed before December 31, 2007. This creates a strict time budget for the developer of the project, Community Energy Inc. It will take nine months to begin construction, and may take longer if the PTC is not renewed.

Christine Real de Azua, Assistant Director of Communications at AWEA, commented on the issue of the PTC deadline and wind farm in Lempster, "The big question is if a project will be able to come online before the PTC deadline. If it cannot, then the project will most likely be delayed, which can have employment repercussions down the production chain."

The PTC is a federal tax credit to support large-scale wind production, and for every kilowatt-hour of energy generated the current credit is 1.9 cents. The hindrance to wind developers is that Congress only renews the tax credit for short periods of time, which is responsible for the "boom and bust cycle" in the industry. Wind industry representatives are working to get a long-term extension for the PTC passed before the end of 2007.

Many wind farm projects are affected by deadlines across the U.S., for example projects in the midwest are on hold due to a Federal Aviation Administration (FAA) study on how wind turbines affect military radar. The study puts development on hold, and if it's for too long it could take years for the projects to be completed. Recently, six projects in Minnesota, Wisconsin and South Dakota have been cleared by the FAA, which will allow for them to be completed before the PTC deadline.

"The timing is going to be tense. If something gets messed up or we don't get our permits in time, then we will have a problem," said Jeff Keeler, Project Manager for Community Energy. "But there is no

chance we will scrap the project. Everyone is hopeful that the PTC will be extended, and we are definitely planning on moving forward.”

*Editor's Note: The above is a summary from Renewable Energy Access, Sept. 29, 2006.*

### **Western Governors Call for Transmission Reforms**

Western Governors Association want the Federal Energy Regulatory commission (FERC) to implement transmission reforms that allow for more variable use of the system so energy from different sources like wind can be put on the market. Many of the western transmission paths only work at full capacity during short, seasonal times of the year. A transmission service called “conditional firm” permits generators of variable energy to be used during the slow periods of the year. Another type of reform called the “re-dispatch” reform will allow different generators in the grid to be ramped up or down so that the transmission system is more efficient. The new policy will aid in the effort to acquire 30,000 MW of clean energy. AWEA Policy Director Rob Gramlich commented on the change “We are thrilled to see the governors following through on their clean energy goals by helping utilities and their regulators understand that there are good reasons for real transmission reform. The governors’ support should ensure that FERC’s 10-year ‘overhaul’ of transmission tariffs will amount to more than a few tweaks.”

*Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1218.*

### **Report Calls for State Leadership in Net Metering**

A report titled, “Freeing the Grid: How Effective State Net Metering Laws Can Revolutionize U.S. Energy Policy”, conducted by the Network for New Energy Choices (NNEC), concluded that strong leadership and effective policy are needed at state level for net metering to be efficient. The report graded states with net metering laws based on how useful their policies were.



Photo Courtesy of Bergev Wind Power Co.

Effective net metering, the act of utilities paying individuals for extra energy they produce, is essential for small-wind advancement. According to AWEA Small Wind Advocate Ron Stimmel, “The report is further evidence that net metering, along with other state and federal policies, is key for small wind to reach its potential.” The report can be accessed at [www.newenergychoices.org](http://www.newenergychoices.org).

*Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1218.*

### **EI President Asks for Extension for PTC**

The president of Edison Electric Institute (EEI), Tom Kuhn, wrote a letter to Charles Grassley, the Senate Finance Committee Chairman (R-Iowa) and Max Baucus, the senior committee Democrat (D-Mont.) insisting that they counteract any efforts made by Senator Lamar Alexander (R-Tenn) to reduce the federal production tax credit (PTC).

The letter was written November 15 and stated “We are very concerned...that Senator Alexander may seek to reduce the effectiveness of your efforts. ... Specifically, we understand that efforts may be made on the Senate floor...to significantly weaken the IRC Section 45 production tax credit. We believe that it would be most unfortunate and counter productive if those efforts were to succeed.” The letter went to state in hopes that IRC Section 45 would be extended.

*Editor's Note: The above is a summary from AWEA's Wind Energy Weekly #1218.*

### **Tax Credit Bonds Help Renewable Energy Projects**

The IRS allotted \$800 million in tax credit bonds to renewable energy projects. Of the \$800 million, \$500 million went to state and local government and \$300 million went to cooperative borrowers. In the U.S 600 projects received Clean Renewable Energy Bonds (CREB), including:

- 434 solar facilities
- 112 wind facilities

- 14 hydro power facilities
- 13 open-loop biomass facilities

Forty states applied for the CREB totaling \$2.6 billion in bonds. Out of the 700 applications, 610 projects were chosen. Timothy Jones, from the office of assistant chief counsel, commented on what the CREB does for government and electric cooperatives: “In all cases, the benefit is they’re getting interest free loans. It’s the interest free component that creates the benefit. Local governments, in many cases, might use their own money to build the project. But if they can borrow the money interest-free, they’d be crazy not to.” The CREB program was setup for not-for-profit electric cooperatives, who can not use the PTC. CREB allows access to the potential renewable energy from the not-for-profit electric cooperatives. The table below lists the projects that qualified for CREBs and the number of projects approved by the government.

Projects that Qualify	Approved Government	Approved Cooperative
Solar Facilities	401	33
Wind Facilities	99	13
Closed Loop Biomass Facilities	0	0
Open Loop Biomass Facilities	1	12
Geothermal Facilities	0	0
Small Irrigation Power Facilities	0	0
Landfill Gas Facilities	23	13
Trash Combustion Facilities	0	0
Refined Coal Production Facilities	0	1
Hydropower Facilities	8	6

*Editor’s Note: The above is a summary from Renewable Energy Access, Dec 4, 2006.*

**In Memory of Carrie Dickerson...**

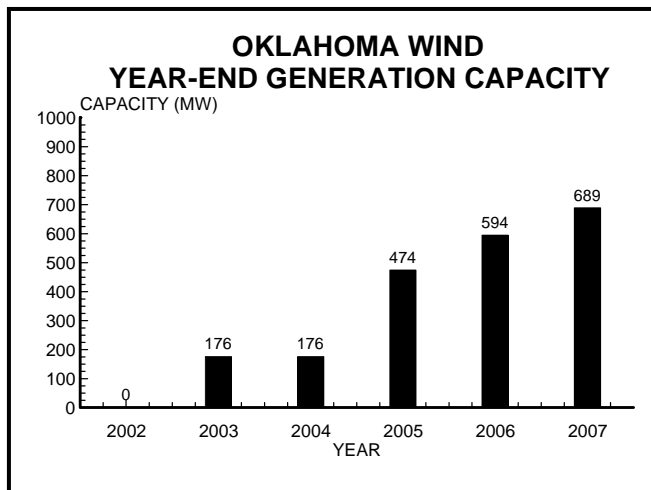
Ms. Carrie Dickerson, of eastern Oklahoma, passed away on November 17, 2006; she was 89 years old. She was an active participant in the energy industry here in Oklahoma, and an advocate for renewable energy. She participated in the Oklahoma Renewable Energy Council when she was able, attended and

exhibited at energy conferences, and was recently given the first Carrie Dickerson Lifetime Achievement Award from the Oklahoma Sustainability Network. On numerous phone calls to OWPI, Carrie would talk about wind energy and how Oklahomans should have been producing it decades ago. She had a very positive outlook on the future of energy and commended the progress of renewables in the state. Carrie will be missed dearly and we wish her family the best. Donations can be made to the Carrie Dickerson Foundation. For more information visit [www.carriedickersonfoundation.com](http://www.carriedickersonfoundation.com) or call Janet Hutto at 918-744-6019.



**OWPI is Represented at the 38<sup>th</sup> Annual Frontiers of Power Conference**

In late October, Steve Stadler and his OWPI co-authors (Scott Greene, Mark Meo, Stephanie Buway, and Jessica Li) presented “The Status of Wind in Oklahoma” to the 38<sup>th</sup> Annual Frontiers of Power conference in Stillwater. The audience consisted of power engineers and power company executives. The major message was that utility-scale wind power development is quite healthy. As of spring 2007, there will be 5 wind farms operating in Oklahoma. Compared to 2002 when there was no wind power in the state, the wind power capacity should reach close to 700 megawatts by the spring of 2007 (See graph).



At that time, about 4% of the state's actual electrical power generation will be from wind. No one Oklahoma agency has overall planning responsibility for the wind, but Oklahoma became a Western Governors Conference state in 2006. The Western Governors Conference has produced a detailed report calling for considerable additions to renewable energy production in the west and fostering regional planning. While utility-scale wind power has prospered, Oklahoma's smaller wind development has not taken off. One impediment was removed by the 2005-2006 Legislature as the generation capacity needed to capture Oklahoma's production tax credit was decreased from 50 megawatts to 1 megawatt. Smaller wind facilities always have a greater cost per unit of electricity produced, but it is evident that the economics of increased utility bills, improvements in small turbine technology, and an increased number of Oklahomans knowledge about the wind could increase our capacity in smaller wind facilities in a great hurry.

#### **Don't Forget....**

The Oklahoma Community Wind Guidebook is 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. 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](http://www.ocgi.okstate.edu/owpi).

#### **OWPI Website Troubles**

Some of you may have noticed that OWPI's website has been down. We apologize to any inconveniences this may have caused. We are pleased to say that the website is now back online. Once again, OWPI offers its apologies.

#### **A New Look for OWPI in 2007...**

Watch your mailbox...

#### **Distribution of the WinCharger**

Electronic distribution of *The Oklahoma WinCharger* is available. To sign up to receive your copy by e-mail, go to the OWPI website at [www.ocgi.okstate.edu/owpi](http://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](mailto:Amy.N.Hillenburg-1@ou.edu) or by phone at 405-447-8412. Thank you.



*Happy Holidays, from all  
of us at OWPI!*

## Calendar of Events

- 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](http://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](http://www.ocgi.okstate.edu/orec) for more information.
- Jan 10** Meeting of the **Oklahoma Renewable Energy Council**, 10 am to noon, OK Department of Commerce, Gallery 1-2. See [www.ocgi.okstate.edu/orec](http://www.ocgi.okstate.edu/orec) for more information.
- Jan 23-24** **AWEA Wind Power Asset Management Workshop** Holiday Inn on the Bay, San Diego, CA. For more information call (202) 383-2512 or visit [http://www.awea.org/.](http://www.awea.org/)
- Feb 9-11** **12<sup>th</sup> Annual National Ethanol Conference**. hosted by the Renewable Fuels Association. JW Marriot Starr Pass Resort & Spa, Tucson, AZ. For more information, please visit [http://www.ethanolrfa.org/industry/conference/.](http://www.ethanolrfa.org/industry/conference/)
- Apr 12-13** **Emerging Energy Technology Conference**, hosted by OREC and Oklahoma Department of Commerce. Norman, OK at NCED. For more information please call (405) 447-8412.

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**November/December 2006**