



**Renewable
& Alternative
Energy**

ENERGY UPDATE

Jan, 2011

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UPCOMING EVENTS

Community Wind Conference
December 8-9, 2011 at Penn State Conference Center and Hotel, State College, PA
<http://www.windustry.org/lovea>

LINKS

- [PSU Renewable & Alternative Energy](#)
- [Coping with High Energy Prices](#)
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WELCOME!

It's another beautiful winter in Pennsylvania, and conditions in many parts of the state are perfect for a wide variety of winter activities. While sledding, skating, skiing, and the like are always a good time, there's no denying that one of the best parts is coming in from the cold to a cosy, warm spot. Nowadays, more and more people in the Keystone State are enjoying the benefits of biomass energy in the form of winter heat - whether it's cordwood in a new, high efficient wood stove, wood pellets from one of the state's many pellet manufacturers, or commercial grade wood chips that are used to heat schools, hospitals, and businesses across the commonwealth. While most people choose biomass heat because of its low cost, many other benefits from this locally produced, renewable resource make it a "feel good" way to feel warm.

It might be a bit late for you to think about switching to biomass heat for this winter, but now is actually a perfect time to start planning for the next heating season. With oil prices on the rise, biomass promises to continue being a very cost effective heating solution for homes as well as larger buildings.

I trust you will enjoy this month's newsletter, which includes several articles on biomass heat and wood energy that are especially relevant this time of year. As always, if you have a friend or colleague that would like to receive this newsletter, please have them email me at dec109@psu.edu.

Stay warm!

Dan Ciolkosz
Newsletter Editor

Renewable and Alternative Energy
Penn State Cooperative Extension

Bioenergy Short Course Series Set for 2011

Hot Topics to be Covered This Year

The Penn State Biomass Energy Center and Penn State Cooperative Extension have teamed up for another outstanding year of short course programming. These short courses are designed to provide advanced training to industry, bioenergy project developers, consultants and policy makers that are looking for the latest developments in the industry. This year's schedule features an outstanding array of bioenergy experts speaking on several important topics.

The short courses are also an outstanding opportunity to meet and network with other bioenergy enthusiasts. This year's schedule includes five short courses:

- Winter Crops for Bioenergy - 29 March, 2011
- Biomass Combustion Emissions and Health - June, 2011
- Life Cycle Analysis Short Course - July, 2011
- Biofuel Catalysis - September, 2011
- Wood Energy Short Course - November, 2011

For more information on the short courses, including registration and fees, visit <http://www.bioenergy.psu.edu/news/shortcourses.asp>

Dan Ciolkosz, Department of Agricultural and Biological Engineering

New Wood Energy Webinars Launched

New Online Events Scheduled

Interested in learning more about wood energy?

As part of Penn State's Northeast Wood Energy extension programming we will be offering a monthly webinar on woody biomass related issues. The webinar will be held the last Friday of every month at 11 AM. Our first webinar will be held January 28. The topic is " Why Wood Energy?" and will be presented by Professor Chuck Ray of Penn State.

To access the webinars, go to the following web page and follow the instructions:

<http://extension.psu.edu/energy/woody-products/northeast-wood-biomass-energy-program/webinars>

If you are not yet signed in as part of the Penn State online network, you will need to register for a "friends of Penn State" i.d. and password - it only takes a few minutes, and the instructions are on the web page.

Upcoming topics are still being finalized, but will include a number of outstanding speakers discussing several of the interesting issues associated with wood energy. I am excited about how this webinar series is shaping up, and I look forward to "seeing" you there.

Michael Jacobson, School of Forest Resources



Mid Atlantic Wind Energy Conference Feb 8-9

Learn from the Experts



The Community and Small Wind Energy Conference is coming up in State College, on February 8-9th. This is the final of three events being held across the country as a part of the Community Wind across America series, and is co-sponsored by Penn State and Windustry (a non profit organization dedicated to promoting wind power).

When: February 8-9, 2011

Where: Penn Stater Conference Center Hotel, State College, PA

Who should attend: Anyone interested in benefiting from wind energy production - Rural landowners, local investors, community leaders, farmers, elected officials, town planners, economic development professionals, business leaders, educators, investors, and bankers.

The two-track program will provide the full range of what's needed to advance opportunities for locally-owned wind energy production. Sessions will address organizing local landowners, securing wind project financing, gaining governmental approval for support policy, and educating communities about the benefits of wind energy.

To find out more or to register, go to <http://www.cvent.com/EVENTS/Info/Summary.aspx?e=5ee5a8c0-f4f1-44b6-a4d5-7c0dca5f1cb2>

Scholarships are available. See www.windustry.org for more information.

Susan Stewart, Applied Research Laboratory.

Farm Show Reflections

Energy Notes from the Nation's Largest Indoor Farm Show

The weather is usually impressive, the days are long, but the conversation and food make the Farm Show something I look forward to each year. This year the show again lived up to expectations with a snow storm, lots of interesting conversations and some trout chowder for lunch. About 400,000 people attended the farm show this year, and we met quite a few of them at Penn State's energy display in the exhibit hall.

This year two areas were especially memorable. The first involved a display with our oil seed press running some canola and spent time talking to folks about the canola SVO demonstration that is ongoing at our Farm Operations. While there are crops with much higher energy yields than canola, it is one that is easily processed into a biofuel on the farm and the SVO engine technology is making that a reality. Several of the folks that stopped by the display were interested in developing their own systems.

The second memorable experience was a more global discussion with some folks about energy use and independence. Several factors continue to concern me and others. These include continued large imports of crude oil - 258 million barrels in November (<http://www.census.gov/foreign-trade/statistics/historical/petr.pdf>), another increase in our trade balance with China (<http://www.census.gov/foreign-trade/balance/c5700.html>) and continued Chinese investment in oil resources in our hemisphere in Latin America (<http://seekingalpha.com/article/241186-why-china-s-oil-producers-love-latin-america>) and even in shale gas in Texas (<http://www.washingtonpost.com/wp-dyn/content/article/2010/10/10/AR2010101004499.html>). All of these confirm to me that investments in renewable energy are critical as growing demand and competition for energy resources grows in the future.



Oil Press and Biodiesel Demonstrations at Farm Show

Greg Roth, Department of Soil and Crop Science

Firewood Value

Still a Good Deal in Pennsylvania

The firewood market is fairly robust these days. Just open the newspaper and you'll see lots of firewood ads. My local paper today has six vendors selling firewood. This is an industry that provides part time work and extra cash for families this time of the year. As well, many landowners enjoy cutting firewood for their own use. It requires very little expense other than chainsaw, safety equipment, wedges, splitting maul, and a small pickup truck or trailer. The firewood market also provides landowners with a market for low grade wood if they don't want to use it themselves.

Burning firewood for heat is environmentally friendly and offers good value for money. Unlike coal, oil and gas, which are non-renewable fossil fuels that contribute greenhouse gas emissions, wood (if sustainably harvested) is a local and renewable energy resource. How does the consumer decide what firewood to buy and where to buy it? There are three main things to consider: price, quantity, and quality.

[Click here for full article](#)

Michael Jacobson, School of Forest Resources.



About Renewable & Alternative Energy Extension

For more information on Cooperative Extension's Renewable and Alternative Energy Resources at Penn State visit our home page at <http://energy.extension.psu.edu>

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