



Update

**Citizens for Pennsylvania's Future (PennFuture)
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April 2007

Register Now – Deadline Approaching

PennFuture's Annual Clean Energy Conference

Radisson Penn Harris Hotel & Convention Center
1150 Camp Hill Bypass, Camp Hill, PA 17011

Thursday, May 31, 2007
8:30 AM to 4:30 PM

[Click here to register](#)

Governor Unveils New Plan for Energy Independence

On February 1, Pennsylvania Governor Edward Rendell released his Energy Independence Strategy that will save Pennsylvania electric consumers \$10 billion in energy costs over the next 10 years; reduce our state's reliance on foreign fuels by increasing the production of clean energy; and create more jobs in the energy production and energy technology sectors. The governor also announced that he will soon introduce his plan for combating global warming.

Here are the highlights:

Clean Energy Funding

- Legislation will be introduced to create a small surcharge, called a system benefits charge, of 0.05 cents per kWh (five hundredths of a cent) on all electricity consumed in the state. Most customers will not even notice this charge on their monthly bills, because it will equal 45 cents per month or \$5.40 annually for the average residential customer. Over 15 states have some type of system benefits charge on electricity, ranging from 0.16 to 0.40 cents per kWh. The proposed statewide fee is much smaller than the current utility stranded cost charge many Pennsylvanians still must pay to compensate the utilities for uneconomic generation investments. Electric customers across the state pay a

combined \$1.2 billion extra per year on their utility bills for stranded costs (uneconomical investments made by utilities that customers must pay) that will end by 2010. The proposed systems benefit charge of \$72 million per year is only five percent of the existing stranded cost charge.

- The systems benefit charge of \$72 million per year will secure \$850 million of bonds to fund the following programs:
 - \$200 million - solar PV grants for residences and small businesses;
 - \$44 million - high efficiency air conditioners and refrigerators rebates;
 - \$106 million - venture capital, grants and loans for expansion of energy companies and
 - \$500 million - clean energy projects and development or equipment costs for specific energy economic development projects

A full description is available on the [web](#).

Solar Rebates in Pennsylvania

- Of the total \$850 million in funding, \$200 million is being set aside for solar PV rebates for residences and small businesses;
- The governor's package would create a major Pennsylvania solar program that would support both residential installations and bigger projects, as well as solar manufacturing in Pennsylvania. Homeowners and small business owners could receive a rebate of \$2.00/watt for each watt installed, with a maximum rebate of \$20,000.
- The solar rebate will be over one half the cost of an installed residential system.

Combined with the current 30 percent tax credit and the potential to sell the Solar Energy Credits generated by the system, a residential solar system will have a payback time of five to 10 years versus 40 years without the rebate or credits.

Renewable Fuels Standard

The PennSecurity Fuels Initiative (PSFI) legislation will require that renewable fuels such as biodiesel and ethanol be sold with transportation fuels.

- The law will require two percent biodiesel in all diesel fuel sold in Pennsylvania once biodiesel production reaches 30 million gallons per year; with four plants already in operation, that threshold could be met this year. The requirement increases to five percent after production reaches 75 million gallons per year; 10 percent after production reaches 150 million gallons annually; and 20 percent after production reaches 300 million gallons per year.
- The law will require 10 percent ethanol in all gasoline sold in Pennsylvania after the state's ethanol production reaches 200 million gallons per year.

The [full legislation](#) can be viewed online.

Smart Metering and Energy Conservation

Energy conservation is a win-win proposition. Reducing demand will limit wholesale and retail electric prices. Reducing demand can make businesses more cost competitive. Reducing demand cuts global warming pollution. Providing energy conservation products and services produces revenue and jobs for those doing it.

- Legislation will be introduced that requires utilities to provide advanced metering for all customers over the next six years. Advanced meters are the key technology necessary to

empower consumers with a better understanding of power use, including how to best conserve and reduce electric bills, and how shifting electric demand away from peak times, like a hot summer afternoon, can save all customers money and increase electric system reliability. Today, the only Pennsylvania utility with widespread advanced meters installed is PPL. This initiative brings a smart, network power grid and all its benefits into focus.

- The legislation will also require utilities to buy energy efficiency resources, instead of generation, as long as energy efficiency costs less than generation. Since saving energy often costs less than producing energy, this will require utilities to purchase more energy conservation.

The [full legislation](#) can be viewed online.

Passing this legislative package will be a tremendous victory for all electric consumers in Pennsylvania and will create significant benefits to both our environment and economy.

PennFuture is hard at work forming a coalition of clean energy industry representatives and other public interest organizations to pass it. While the coalition is strong, we need your help too. If you want to see rebates for solar energy, more renewable energy and fuels and new energy conservation options, please contact your state senator and representative. Go to PennFuture's [Legislative Action Center](#) for an easy way to take action for clean energy.

Act II: Pennsylvania Carbon Plan Coming Soon

Global warming is finally taking center stage. The Supreme Court just told the Bush administration and the U.S. Environmental Protection Agency that they can no longer ignore the science of climate change; that they do have the authority to regulate carbon; and they better consider doing just that. There are half a dozen bills addressing global warming in the U.S. Senate and House and several in the Pennsylvania legislature. "An Inconvenient Truth" has received an Oscar™. And Goldman Sachs, the financial giant, refused to accept the carbon liability of the TXU coal fired generation plans in Pennsylvania until those plans were reduced by over two-thirds and 400 megawatts of wind energy was added. We are clearly beyond the tipping point and a carbon-constrained world (that's the latest shorthand for a world where everyone MUST reduce the flow of carbon dioxide and other heat-trapping gases into the atmosphere, where failing to do is unimaginable) is rapidly approaching.

Here in Pennsylvania, without any reductions and business as usual, total annual emissions will increase to 350 - 400 million metric tons by 2025. If Pennsylvania were to offset electricity use through energy conservation, incorporate carbon neutral biofuels and clean cars into our diesel and gasoline fuels markets, and increase our renewable portfolio standard, we could reduce carbon emissions by nearly 75 million tons.

Stay tuned. We'll keep you informed as plans progress.

PECO Gets a Jump-Start on Buying Alternative Energy

PECO, the electric utility serving southeastern Pennsylvania, filed a petition with the Pennsylvania Public Utility Commission (PUC) in March to seek approval to meet its Alternative Energy Portfolio Standards (AEPS) requirements ahead of schedule. PECO must

comply with the AEPS in 2011, when 3.5 percent of the electricity it sells in the state must come from Tier I renewable resources like wind and biomass.

PECO's petition states that it will purchase alternative energy credits equaling 450,000 megawatt-hours each year for five years to meet its early AEPS requirements, representing enough energy to power 72,000 homes. Each alternative energy credit purchased by PECO represents one megawatt hour of renewable energy produced by a generator.

PECO will be the first utility in the state to comply with the AEPS if the PUC approves its petition. Due to the importance of this action, PennFuture will be intervening in the case to make sure PECO is able to comply ahead of schedule. We hope that PECO will set the bar high and encourage more utilities to begin buying renewable energy today.

We expect that this request for early purchase will establish the needed protocols and give a significant boost to the market, particularly wind power, which is forecast to be the main source.

Wind Energy Update

Wind and Wildlife Collaborative Moves Ahead

PennFuture is continuing to work alongside Pennsylvania agencies, wind companies and public interest organizations to create a set of Pennsylvania-specific principles, policies, best management practices, guidelines, and tools to help wind development move forward in the state.

Recently the collaborative hosted a two-day workshop in Indiantown Gap, where the group heard from a variety of experts on topics including Pennsylvania wildlife and habitats, wind development site assessment tools and methodologies, impact assessment and monitoring tools. The session brought wildlife experts and wind industry members together to identify where uncertainties remain and how to move forward to assure wind and wildlife can co-exist. A listing of presentations and information from this event can be downloaded at the collaborative [website](#).

The collaborative has also been working with the Pennsylvania Game Commission, which just announced a [voluntary cooperation agreement](#) between wind energy development companies and the commission. The document sets forth criteria for pre and post-monitoring studies and risk assessment for raptors, breeding birds, bats and habitat. This agreement is one of the first in the country and is being widely considered by other states.

Wind Energy Breaks Another Record

Wind development experienced another record-breaking year in 2006. According to the Global Wind Energy Council (GWEC), 15,197 megawatts of wind was installed in over 70 countries during 2006, an increase of 32 percent over the previous year's growth. The new installations bring worldwide capacity to an impressive 74,223 megawatts, enough to power over 22.3 million homes.

Within the U.S., wind energy is one of the fastest growing sources of new generation, with 2,454 megawatts of new wind energy installed in 2006, creating a total of 11,603 megawatts total, enough to power approximately 3.5 million homes.

Wind Power Creates a Clean Tailwind at Philadelphia Airport

Philadelphia International Airport is now the largest purchaser of wind power among all airports in the U.S. The airport committed to buy seven percent of its annual electricity use – about 13,000 megawatt hours – from wind power each year.

You, too, can join the wind energy forces by visiting www.cleanyourair.org.

Student Push for more Wind Power at Pennsylvania Colleges

Students at both Swarthmore College and Eastern University have pushed their schools to buy more wind power.

At Eastern University in St. Davids, a student-led initiative has helped fund the purchase of wind energy since 2002. This year, through voluntary student fees of \$24 and school funds, the University is committing to purchase **100 percent** of its energy use, 15,568,000 kilowatt-hours (kWh), from wind power through Community Energy, Inc of Wayne.

Swarthmore College also increased its wind power purchase this year from 19 to 35 percent thanks to a student-run campaign led by Earthlust, the Swarthmore student environmental group. The group hopes to keep increasing the percentage of wind power to 100 percent in the future.

Voluntary purchases of wind energy provide an incentive for more wind development above and beyond the requirements of the Alternative Energy Portfolio Standards Act (AEPS). PennFuture fought hard to help keep the voluntary market alive in our recent comments to the Public Utility Commission on its proposed AEPS rulemaking. We hope to succeed, but the final rules have not yet been published. The governor is also working to help preserve this market by including legislation in his Energy Independence Strategy that will assure the voluntary market is protected outside of the AEPS.

Small Wind Tax Credit Introduced in the Senate

New legislation was introduced in the U.S. Senate to create tax incentives for small-wind development. The legislation titled the “Rural Wind Energy Development Act” (S 672) was introduced by U.S. Senator Ken Salazar (D-CO) in February and would provide \$1,500 per one-half kilowatt of capacity for small wind systems (defined as under 100 kilowatts). This bill would make the credit available for five years, and there is no cap on the amount of the credit granted per system.

For more information on how to support this bill, please visit the [American Wind Energy Association’s Legislative Action page](#).

Happenings in the Marketplace

Traditional Light Bulbs Getting the Boot

Several government and private sector initiatives are under way to phase-out the use of electricity guzzling incandescent light bulbs. Wal-Mart, Yahoo, Environmental Defense, the U.S. Environmental Protection Agency and the Department of Energy, U.S. mayors, retailers, religious organizations and conservation groups have formed a grassroots marketing campaign called [18Seconds](#) to increase awareness of the benefits of compact fluorescent light bulbs (CFL). The campaign title refers to the amount of time needed to change a light bulb, and the campaign's tagline is "Change a Bulb, Change Everything." CFLs use about 20 percent less electricity than traditional bulbs. If every American switched just one light bulb to an Energy Star labeled compact fluorescent bulb, the nation could save \$8 billion in energy costs and eliminate two million cars worth of greenhouse gas emissions.

Government is also supporting these energy efficient bulbs. California and New Jersey lawmakers are pushing to ban traditional light bulbs and Australia announced it will completely phase out incandescent bulbs by 2010, reducing the country's greenhouse gas emissions by 4 million tons by 2012.

Remember the cost of CFLs has fallen significantly. So the next time you need to replace a light bulb, replace it with a CFL. Even though CFLs may cost a little bit more, they last 15 times longer than traditional bulbs and can save you money in the long run. Replacing just five lights with CFLs will save you about \$70.00 per year on your electric bill.

Solar Merger Brings Big Investments to Pennsylvania

In November, Germany-based Conergy AG, the world's largest solar power integration company, announced that it had chosen Pennsylvania for the North American headquarters of its financial subsidiary, Voltwerk, and the East Coast operations of its solar engineering and installation subsidiary, SunTechnics.

Now, just a few months later, Governor Rendell announced that SunTechnics has merged with Pennsylvania based Mesa Environmental Sciences, Inc., bringing \$50 million in new solar energy projects to the state. Mesa has been a key player in the renewable energy market since 1999, and has extensive experience in the installation of photovoltaic and solar thermal energy projects for residential, commercial, university and government buildings. By merging with SunTechnics, Mesa will double its staff and acquire more capital.

Governor Rendell's continued support for renewable energy is bringing more clean energy investment to the state. Solar energy is expected to grow even further thanks to the Governor's new \$200 million Pennsylvania Sunshine Solar Initiative that provides incentives for solar manufacturers to establish operations in Pennsylvania, and offers rebates to cover up to 50 percent of the cost of new solar systems for homeowners and small businesses.

AEPS Update

The Alternative Energy Portfolio Standards Act of 2004 (AEPS), which was signed into law on November 30, 2004, requires electricity providers to green-up their mixture of electricity by including a mandated level of advanced and renewable energy such as wind, solar, landfill methane and hydro. The Pennsylvania Public Utility Commission (PUC) is continuing to work

through regulations that will dictate how utilities comply with the law and has made the following progress:

1. As of December 16, 2006, the net metering regulations took effect. Customers who are currently net metering began to receive credit for the energy produced at the first full billing period after that date.
2. The PUC also adopted a final policy statement order that provides guidance to developers, regulated industries and the general public as to what types of projects the PUC believes fall outside the definition "public utility,". This statement helps to remove roadblocks to alternative energy projects being built in the state.
3. The final AEPS rules have yet to be finalized. The PUC still needs to issue a final form rule at a public meeting. The rule will then have to be approved by the Independent Regulatory Review Commission (IRRC) and the Attorney General, and then published in the Pennsylvania Bulletin. It is vital that the AEPS rules be finalized by the summer, or the rules will not become final until the legislature returns from summer recess. The longer it takes to finalize these rules (which pertain to cost recovery, geographic scope, and banking), the more uncertain the renewable energy market will remain, and the more hesitant utilities will be to comply with their requirements in advance.

Biofuels Update

Ethanol Projects Receive Federal Funds

Five ethanol conversion projects were recently awarded over \$23 million from the U.S. Department of Energy to develop a more cost-effective process to produce cellulosic ethanol. The grants are part of reaching President Bush's goal to make cellulosic ethanol cost competitive by 2012.

Currently the process of producing cellulosic ethanol is far more expensive than corn-based ethanol due to extra steps in the fermentation process. But there is a wide base of cellulosic feedstock that can be used in the process, ranging from agricultural wastes like corn stover and cereal straws, as well as switchgrass, logging scraps, sawdust and paper pulp. If the cost can be brought down with advances in research, cellulosic ethanol could help enhance our nation's energy security by replacing our reliance foreign oil.

First Commercial Scale Wood Chip Ethanol Plant in Works

Range Fuels Inc. (formerly Kergy Inc.), will build an ethanol plant in east central Georgia's Treutlen County. Unlike traditional ethanol plants, the Range Fuels facility will produce ethanol from wood chips instead of corn. To date producing this type of cellulosic ethanol has proven too expensive at commercial scale. Range Fuels, however, has developed a way to use heat and pressure to convert the wood into a hydrogen rich gas, which in turn is converted to ethanol with a chemical catalyst. The company states that this process makes cellulosic ethanol more commercially feasible.

While the company wouldn't state how much cost is associated with the development of the plant or how much the fuel will sell for, the plant will initially produce 10 million gallons of ethanol a year and will create about 70 jobs.

If this project is successful, it could mean that the commercial production of cellulosic ethanol could occur five or more years earlier than projected. This would be great news for Pennsylvania. The Commonwealth has a large amount of potential feedstock for wood chip ethanol with over 14 million acres of forested land. It's important to note that this would not mean any clear-cutting of Pennsylvania's forests would occur, but wood waste left over from forest harvesting activities could be used to produce ethanol. The Pennsylvania Department of Conservation and Natural Resources is considering taking the lead in creating a Pennsylvania biomass energy resources management plan to assure that renewable energy feedstocks are managed and harvested in a sustainable manner.

Renewable Energy at Farm Show a Big Success

The Pennsylvania 2007 Farm Show was a huge success and helped to spread the message of the benefits renewable energy can have to the agricultural community. More than 400,000 visitors to this year's event were able to see the newly installed wind turbine from Southwest Windpower spinning and producing electricity as they walked by. In addition, visitors were able to stop by numerous exhibitor tables that provided informative literature and expertise on biofuels, wind power and solar energy.

Other highlights included Penn State's demonstration of its two B100 biodiesel tractors and the Public Officials Day Luncheon focusing on renewable energy. And, of course, the massive butter sculpture of Ben Franklin and the Liberty Bell was converted into renewable energy – biodiesel – thanks to Philadelphia Fry-o-Diesel.

PennFuture News

PennFuture Continues Work in Energy Conservation Working Group

The PUC Demand Side Response Working Group continues to meet regularly to determine what programs utilities can implement to help retail electric customers conserve energy or use it more efficiently. PennFuture has participated in all of the meetings and recently submitted comments on the PUC's draft report outline. The working group is expected to circulate a draft report among participants shortly, and will issue a final report by May 17, 2007. It's expected the PUC will enter the report as a Tentative Order and will then ask for additional comments. The draft outline, various presentations and information can be found at the [working group's website](#).

PennFuture is encouraged by the great ideas for energy conservation programs, decoupling and advanced metering being discussed by the working group. We hope that the PUC will take steps to follow-through and implement a set of programs in the state that will give consumers the necessary tools to lower their energy consumption.

Upcoming Events

Deadline Nearly Here for Discounted Fees for PennFuture's 2007 Annual Clean Energy Conference:

Join the state's top policy makers, the nation's top renewable energy developers and the world's top manufacturers at

PennFuture's 2007 Annual Clean Energy Conference

To Market, To Market: Producing Pennsylvania-Made Energy in Governor Rendell's Second Term

From Negawatts to Biofuels to Wind to Solar to Hydro and Beyond

Thursday, May 31, 2007

8:30 AM to 4:30 PM

Radisson Penn Harris Hotel & Convention Center

1150 Camp Hill Bypass, Camp Hill, PA 17011

Space is limited, so register today on our [secure website](#).

All registrants will also be entitled to attend the **Special Pre-Conference Workshop**
Follow the Money – Financing Clean Energy in Pennsylvania
on Wednesday May 30, 2007 from 3:00 to 5:00 PM

[Register online](#) now. Register by April 23 for discounted fees: Registration must be received by Wednesday, May 23.

Corporate - \$225 - discounted to \$200 if paid by 4/23/07
Government - \$175 - discounted to \$150 if paid by 4/23/07
Non-profit - \$100 - discounted to \$85 if paid by 4/23/07
PennFuture Member - \$75 - discounted to \$70 if paid by 4/23/07

Rooms are available at the Radisson Penn Harris for the PennFuture rate of \$103 per night. Hotel reservations must be made by May 9, 2007 by calling (717) 763-7117.

For the conference agenda, click [here](#). Space is limited, so [register](#) today.



Green Power: Turn It On! is sponsored by PennFuture, a statewide public interest membership organization working to protect and promote Pennsylvania's economy and environment. PennFuture encourages everyone to buy clean energy, but does not endorse any specific clean supplier.

About *Green Power Update*: Technology, policy and capital are all needed to create new sources of renewable energy. *Green Power Update* aims to keep you informed of new developments in these three areas and how they are helping to move Pennsylvania towards a clean energy economy.



PennFuture is carbon free and is powered by 100 percent clean electricity. To find out how your home or business can purchase clean, renewable energy, visit www.CleanYourAir.org today. It's Here. It's Working. Let's Make More.

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