

Conservation Committee Report

Volume 9 Issue 1

By Jack Walters, ACSL Conservation Chair

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The Conservation Pledge

I give my pledge as an
American to save
and faithfully defend from
waste,
the natural resources of my
country;
the soil, the water, the air,
the minerals, the plant life and
the wildlife.

This is my Pledge!

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Wind Power from Somerset Will Reduce Customer's Energy Costs by \$20 Million Over 10 Years

Constellation Energy announced last month that it has been awarded a 10-year contract to provide wind power to the Washington Suburban Sanitary Commission (WSSC). The wind power will be generated in Somerset County, Pa. The innovative 10-year agreement will meet WSSC's goal of using wind power for approximately one-third of its electricity needs and significantly reduce its energy expenditures.

WSSC General Manager Andrew Brunhart said the agreement will lower the agency's energy expenditures by an estimated \$20 million dollars over 10 years, while providing long-term price stability and a substantial commitment to the environment.

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IRS Increases Commuter Benefit Tax Incentive

The IRS has increased the amount employers and employees can set aside in qualified, tax-free transportation fringe benefit plans to \$1,320 for 2007, Commuter Services of South Central Pennsylvania reported today.

"Participating in the transportation fringe benefit plan helps employers to get an edge in recruiting and retaining workers. We often hear from employers in this region that this is their greatest challenge," said Rich Farr, vice chair of the Susquehanna Regional Transportation Partnership and executive director of the York County Transportation Authority.

Similar in tax treatment to health savings accounts, the pre-tax payroll deductions up to \$110 per month can be used by commuters to pay for vanpools and transit, or the employer can pay for the benefit. Commuters save money by reducing their federal taxable income and their commuting costs. Employers save by reducing payroll taxes, such as Social Security and Medicare.

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Wind Power from Somerset Will Reduce Customer's Energy Costs

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“This initiative benefits our customers in many ways,” Brunhart said. “Wind power saves money on energy costs and improves air quality by reducing the amount of greenhouse gases released into the environment.”

The market-driven contract also concretely demonstrates that wind generation adds value to the regional electricity distribution system.

Constellation Energy, through its subsidiary, Constellation Energy Projects & Services, has a long-established relationship with WSSC as energy consultant and risk manager.

“WSSC is one of the most-forward thinking organizations in energy usage and purchasing,” said Gregory Jarosinski, president and CEO of Constellation Energy Projects & Services Group. “Initially, we worked with WSSC to help reduce and manage the agency’s energy load, then worked as a team to achieve energy risk management. Assisting WSSC as it takes a leadership role in the renewable energy market was the next logical step.”

The wind power for the WSSC agreement will be generated by a project developed by Edison Mission Group, a subsidiary of Edison International, in Somerset County. Constellation NewEnergy, North America’s largest competitive supplier of power to commercial and business customers, entered into an agreement with Edison Mission for the 10-year, 30-megawatt power purchase agreement. Beginning Jan. 1, 2008, WSSC will receive 85 percent of the wind project’s power output; CNE will retain and market the remaining 15 percent.

“The WSSC proposal represented a unique opportunity to meet the renewable energy needs of a premier customer and also to grow CNE’s portfolio of green energy for our commercial customers,” said Clem Palevich, president of CNE. “The project serves as an industry model for how customers can use competitive markets to lower their energy costs and increase their use of renewable energy through long-term green power agreements.”

For more information on Constellation Energy, visit <http://www.constellation.com>.

Source:DEP

IRS Increases Commuter Benefit Tax Incentive**(continued)**

Transit agencies partnering with Commuter Services include: Adams County Transit Authority; County of Lebanon Transit Authority (COLT); Red Rose Transit Authority (Lancaster); York County Transportation Authority (rabbittransit); and Capital Area Transit (CAT, Cumberland-Dauphin-Harrisburg).

CAT, rabbittransit, Red Rose Transit, and Colt all accept TransitChek® and QuickPay, which are ways that employers can provide the qualified fringe benefit program. TransitCheks and QuickPay are used to buy passes, tokens or tickets.

The new \$110 monthly maximum benefit is more than enough to cover current costs of monthly transit passes for these regional transit agencies.

Employers can contact Commuter Services regarding the options for taking advantage of the federal transportation tax benefit, provided by the IRS under Code Sec. 132(f)(2).

Visit www.PaCommuterServices.com for information on Commuter Services and links to the partner transit agencies. Commuter Services, which serves seven counties that have more than 800,000 commuters, promotes transit use and vanpooling as two of several alternatives to driving alone to work.

Source: DEP

**POINT STATE PARK RENOVATION WORK
TO ENSURE ‘BASTION’S’ PROTECTION, PRESERVATION**

Following a plan supported by the Pennsylvania Historical and Museum Commission, the Department of Conservation and Natural Resources is resuming renovation work at the Fort Pitt tracery in Pittsburgh’s Point State Park as part of a \$7.1 million improvement project.

“We have worked with PHMC to outline modified contract specifications to fill in the tracery, also known as the Music Bastion, to meet our primary goals of protection and preservation of the wall and the area below,” DCNR Secretary Michael DiBerardinis said.

The park project contractor now is set to begin protecting and backfilling the 12-foot deep tracery trench that stretches some 500 feet around the “city side” of Point State Park. The trench contains a reconstructed section of the Fort Pitt wall.

“We are committed to protecting this remnant of a treasured historic resource, and DCNR’s selection of backfill materials, method of backfilling, and lining system separating fill from the wall all will meet the requirements to achieve this goal,” PHMC Executive Director Barbara Franco said.

All trench and wall dimensions and depths will be recorded and documented accurately on “as-built” site drawings, enabling future recall of the features’ locations and depths.

The wall will be covered with a layer of geotextile fabric; a thick, felt-like blanket that will protect and delineate it. The second layer will consist of a sand and gravel mix at least one foot thick. In addition, a second geotextile blanket will line the entire trench.

The remaining fill material will consist of recycled concrete, pavement and soils from other work areas in the park. All of the fill material will be carefully placed in the trench in approximately 8” thick layers.

Granite curbing will be installed on the new surface to outline the tracery (similar to the existing stone outline for Fort Duquesne on the Great Lawn).

The contract specifications governing the tracery work have been reviewed by a Pittsburgh geo-technical firm, a DCNR inspector, and an archeologist who will continue to serve as an on-site consultant.

The master plan for improvements to the 36-acre Point State Park was developed through many public meetings attended by hundreds of community leaders, area residents and historians, archeologists and other experts. The first phase of the project is expected to be completed by the end of 2007.

For more information on Point State Park, visit www.dcnr.state.pa.us.

Source: DCNR

**PENNSYLVANIA, OTHER STATES SECURE MAJOR ENERGY CONSERVATION
AGREEMENT WITH U.S.**

States Sued Feds for Failing to Adopt Stronger Energy-Saving Standards

Governor Edward G. Rendell today announced that the U.S. Department of Energy will set new standards to sharply increase the energy efficiency of 20 common domestic appliances, settling a lawsuit that Pennsylvania, a coalition of states, and several consumer and environmental groups filed against the federal department last year.

“Energy policies that do not emphasize conservation and efficiency are incomplete,” Governor Rendell said. “Pennsylvania is doing its part to encourage alternative energy development and reduce our dependence on foreign fuels. We are pleased the Department of Energy is stepping up to do the same. This is a tremendous victory for the environment, our economy and consumers.”

According to the Department of Energy’s own estimates, the efficiency standards covered by this agreement will reduce energy use by as much as 35 quadrillion British thermal units (BTUs) over a 30-year period. By comparison, all U.S. households combined consumed 21 quadrillion BTUs of energy in 2004.

The standards also have the potential to reduce greenhouse gases. Annual carbon dioxide emissions could be reduced by as much as 103 million metric tons a year, as well. This is the equivalent of eliminating emissions from more than 18 million cars and light trucks from America’s roads.

“Enhanced efficiency is an essential component of America’s energy future,” Environmental Protection Secretary Kathleen A. McGinty said. “Improved standards for appliances that use large amounts of electricity, natural gas and oil mean immediate environmental improvements and additional cost savings for consumers --- not to mention greater security at home.”

In the 1980s, the U.S. Congress directed the Department of Energy to periodically update the efficiency standards for a wide range of consumer products, such as furnaces, water heaters, clothes washers, home ranges and ovens, air conditioners and dishwashers. The department consistently failed in this regard, and in some cases is as much as 14 years late in developing new standards for some products. DOE has not adopted any appliance efficiency standards since January 2001.

In September 2005, Pennsylvania joined a lawsuit filed in U.S. District Court’s Southern District of New York in an effort to compel the Department of Energy to catch up. The lawsuit sought a binding schedule for the overdue standards.

States joining the suit include California, Connecticut, Illinois, Iowa, Maine, Massachusetts, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Rhode Island, Vermont and Wisconsin. Other parties include the California Energy Commission, New York City, the Natural Resources Defense Council, the Massachusetts Union of Public Housing Tenants and the Texas Ratepayers Organization to Save Energy.

**PENNSYLVANIA, OTHER STATES SECURE MAJOR ENERGY CONSERVATION
AGREEMENT WITH U.S. (continued)**

Energy efficiency standards play an important role in ensuring affordable, reliable energy. Energy efficient appliances reduce air pollution, global warming and other environmental problems associated with the generation of electricity while saving money for residential and commercial consumers.

The agreement covers the following products, by category and standard deadline:

- Room air conditioners -- June 2011
- Central air conditioners and heat pumps -- June 2011
- Water heaters -- March 2010
- Pool heaters -- March 2010
- Direct heating equipment -- March 2010
- Furnaces and boilers -- September 2007
- Dishwashers -- March 2009
- Clothes dryers -- June 2011
- Fluorescent lamp ballasts -- June 2011
- Ranges and ovens -- March 2009
- Additional lamps -- June 2009
- Incandescent reflector lamps -- June 2009
- Fluorescent lamps -- June 2009
- Packaged air conditioners and heat pumps -- September 2008
- Packaged boilers -- February 2007
- Instantaneous water heaters -- February 2007
- Medium-sized motors -- June 2011
- High intensity discharge lamps -- June 2010
- Electric distribution transformers -- September 2007
- Small motors -- February 2010

For more information on Governor Rendell's energy initiatives, visit the department's Web site at www.depweb.state.pa.us, Keyword: "Energy."

Source: DEP

DOE Project Revives Oil Production in Abandoned Fields on Osage Tribal Lands

Novel Oil Recovery Technique Developed Under DOE's Native American Initiative

A technology developed with U.S. Department of Energy funding has revived oil production in two abandoned oilfields on Osage Indian tribal lands in northeastern Oklahoma, and demonstrated a technology that could add billions of barrels of additional domestic oil production in declining fields.

Production has jumped from zero to more than 100 barrels of oil per day in the two Osage County, Okla., fields, one of which is more than 100 years old. The technology was successfully pilot-tested in the century-old field, and using the knowledge gained, the technology was applied to a neighboring field with comparable success. This suggests that such approaches could revitalize thousands of other seemingly depleted oilfields across America's Midcontinent region.

The pilot test was funded under DOE's Native American Initiative, which is implemented by the Office of Fossil Energy's National Energy Technology Laboratory. The initiative seeks to stimulate economic development and increase oil and natural gas production on American Indian lands while protecting the environment. Through tribal partnerships with industry and academia, the development of innovative technology results in increased revenues and educational benefits for tribal members. In this case, the Osage Tribe was a partner in the project and stands to earn royalties on incremental oil production.

Grand Resources Inc., a small, independent oil producer based in Tulsa, Okla., proposed an innovative approach to the recovery of oil in the Bartlesville sandstone geologic formation in the 100-year-old Wolco field in the Osage Nation: waterflooding using horizontal wells. Waterflooding using vertical wells is the most common form of "secondary" oil recovery; it involves injecting water into an oil reservoir where production is declining in order to help repressurize the reservoir and help "sweep" the residual oil to producing wells.

The Bartlesville sandstone is shallow, underpressured, and naturally heavily fractured. That makes it a poor candidate for a conventional waterflood, because the vertically injected water is too easily channeled away through the natural fractures before it can flush out residual oil impregnated in the sandstone.

However, the Bartlesville formation offers a tantalizing target for improved oil recovery efforts: More than 1.6 billion barrels of oil has been produced from the Bartlesville sandstone in northeastern Oklahoma, yet the recovery efficiency averages only about 20 percent of the original-oil-in-place.

Grand Resources' innovation was to drill three horizontal wells in parallel - an injector well surrounded by two producing wells - after conducting extensive reservoir characterization studies of Wolco field.

In horizontal drilling, a vertical borehole is drilled first, then "kicked off" at a roughly 90-degree angle through an underground formation. Horizontal drilling has become common in the oil and gas industry in the past 20 years, gaining popularity because horizontal wells can penetrate more of a pay zone than a verti

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DOE Project Revives Oil Production in Abandoned Fields on Osage Tribal Lands**(continued)**

cal well can. Although they cost more, horizontal wells can produce more oil and gas by orders of magnitude, thereby accelerating the return on investment. For the most part, horizontal drilling is limited to potential producing wells and deeper formations.

Grand Resources' chief innovation was to design a horizontal waterflood program that could be economic for a shallow, underpressured, highly fractured reservoir. The company also developed special techniques to economically drill and monitor the shallow horizontal wells without damaging the producing formation.

Following its success with the Wolco pilot, Grand Resources expanded its horizontal waterflood in that field and implemented a similar project at neighboring Avant oilfield, with comparable results. The two fields together are producing on average 103 barrels per day of oil. By the end of its third year in 2005, the pilot project had yielded more than 6,000 barrels of oil - about as much as a vertical waterflood might have produced over a 10-year period; the test wells are expected to ultimately produce almost 29,000 barrels.

An economic evaluation indicated that the Wolco project, expanded to demonstration scale, would generate \$2.9 million in total revenue over 6 years versus \$1.4 million in total revenue over 30 years for a vertical waterflood.

The Grand Resources' project's success has translated into growth for the small independent as well. The company's staff has grown from 8 employees when the DOE grant was awarded, to 45 today.

America has more than 218 billion barrels of by-passed conventional oil lying at shallow depths in tens of thousands of declining or depleted reservoirs. If replicating Grand Resources' success could tap even a tenth of that by-passed oil, it would roughly double the Nation's proved crude oil reserves.

Source: DOE