

Kentucky Energy Watch

Department for Energy Development and Independence

A snapshot of state and national energy issues



Project cuts annual energy costs at University of Kentucky by \$2.4 million

University of Kentucky officials say a \$25 million energy-savings project has cut costs by \$2.4 million a year and reduced its carbon dioxide output by 23,291 tons a year, the equivalent of taking 45,755 cars off the road. In UK's aging Chemistry/Physics building, the changes include new energy-efficient lighting and ventilation systems. The upgrades were part of a project approved in 2009 to help UK save money. Under a deal with Ameresco, a national energy savings company, UK issued \$25 million in bonds to pay for the work. UK is now saving about \$2.4 million a year; \$2.2 million is used to pay off the bonds and the rest is banked for future energy savings. (Kentucky.com – Nov. 20, 2012)

Hundreds of laid-off workers heading back to Southern Coal

Several hundred miners who were laid off in Kentucky, West Virginia and Virginia will be called back to work by Southern Coal Corp., which also plans to hire 650 new workers. Southern Coal, based in Roanoke, Va., said Tuesday it will supply coal to American Electric Power Co. Inc. (NYSE: AEP) in a multiyear contract, the Lexington Herald-Leader reports. That agreement will restart mines that were idled earlier this year and save 500 jobs. Southern Coal, which is owned by the Justice Family, also has operations in Tennessee and Alabama, according to the report. (Business First – Nov. 28, 2012)

Using trash to create energy

When it comes to trash, you can stick it in a landfill. But using it to create energy is an increasingly popular option. Sometimes that trash is literally burned to fuel a process. Sometimes the methane that's created by landfills is used for electricity. Sometimes companies use technology that to capture the waste heat from their systems, and re-use it. And recently, scientists unveiled a new material that's much more effective at converting waste heat to electricity. Here in Louisville, tires are being converted to energy, reducing air pollution and saving landfill space. The Courier-Journal took a look at the process at Louisville's CEMX plant: The plant started burning tires in place of coal in 2010. The changeover has helped Kentucky waste managers keep an estimated 2 million tires out of landfills, while the plant has burned as much as 24,000 fewer tons of coal. Tires now make up about 15 percent of the plant's fuel. (WFPL – Nov. 26, 2012)

Natural gas costs rising for Columbia Gas customers

Columbia Gas of Kentucky customers will pay 19 percent more for natural gas for the next three months, beginning Nov. 28, because the state Public Service Commission has approved the utility's quarterly gas cost-adjustment proposal. Customers who are supplied by Columbia Gas and have been for the past 12 months will pay \$4.2366 per thousand cubic feet, up from \$3.5459. People who are Columbia Gas customers but during the past year were in the Customer Choice program, which uses other suppliers, will pay \$5.6583, up from \$4.9716. Columbia Gas adjusts its prices quarterly to reflect market conditions. Utilities are not permitted to make a profit on the cost of natural gas, which accounts for about half of bills. Gas costs are estimated, and actual costs from the same quarter a year ago are reflected in those estimates. The company overestimated its costs and charged more last year, leading to lower prices this quarter for people who also were customers a year ago. (Kentucky.com – Nov. 28, 2012)

Microsoft to test wastewater-powered fuel cell for data centres

Software giant Microsoft is to test out whether a fuel cell power plant running on biogas generated by a wastewater treatment facility can support support a data centre. The data centre research project in Cheyenne, Wyoming will use FuelCell Energy's stationary fuel cell power to evaluate whether onsite biogas could be used to generate ultra-clean and carbon-neutral electricity to run sustainable data centres in the future. FuelCell Energy's sub-megawatt Direct FuelCell power plant will be installed at the Dry Creek Water Reclamation Facility in Cheyenne, Wyoming by spring 2013. The plant will provide 200 kW of power for Microsoft's Data Plant, a modular pre-assembled set-up to house servers that recreates a typical data centre. Any excess power not needed by the data centre will be diverted to the water reclamation facility to offset electricity costs and the facility will be designed to operate even in the event of a grid outage. While the fuel cell is not completely zero-emission, it virtually eliminates some pollutants like nitrogen (NOx) and sulphur (SOx) oxides and particulates and is highly efficient. (Energy Efficiency News – Nov. 23, 2012)

The demise of coal fired power plants

For years, Footprint Power — known as one of Massachusetts's "filthy five" — has flirted with closure and avoided a costly overhaul that would bring its toxic emissions in line with modern pollution standards. In 2003, Gov. Mitt Romney (R) stood in front of the plant and declared: "I will not create jobs that kill people. That plant kills people." Nine years later, two of Salem Harbor power plant's generating units are still operating and the other two, including an oil-fired unit, closed last December. Now, however, the prospect of long-lasting cheap natural gas supplies has sealed the fate of the plant. In August, Footprint Power, run by a group of former utility executives, bought the 60-year-old plant from Dominion Resources and announced they would tear it down in 2014 and replace it with a cleaner, more economical natural-gas-fired unit. (The Washington Post – Nov. 23, 2012)

Kentucky Retail Fuel Prices (Dollars per gallon)

Product	11/29/2012	11/20/2012	11/15/2012	11/8/2012	Year Ago
Gasoline (State avg.)	3.418	3.299	3.348	3.358	3.193
Ashland	3.468	3.332	3.397	3.37	3.26
Covington	3.538	3.44	3.496	3.453	3.254
Lexington	3.45	3.326	3.472	3.442	3.188
Louisville	3.448	3.167	3.211	3.288	3.08
Owensboro	3.279	3.285	3.286	3.278	3.138
Diesel (State avg.)	4.157	4.02	3.966	3.961	3.948
Ashland	4.139	4.036	3.961	3.972	3.966
Covington	4.211	4.037	3.963	3.947	3.953
Lexington	4.213	4.051	3.968	3.968	3.963
Louisville	4.182	4.011	3.987	3.988	3.948
Owensboro	4.071	3.996	3.978	3.989	3.987

Note: The record high average price for gasoline in Kentucky is \$4.089, reported on July 10, 2008.

Source: Gasoline (unleaded regular) & Diesel: National AAA,

Product	11/26/2012	11/19/2012	11/12/2012	11/5/2012	Year Ago
Heating Oil (dollars per gallon)	3.848	3.719	3.684	3.651	3.471
Propane (dollars per gallon)	2.073	2.077	2.062	2.04	2.561

Source: U.S. Energy Information Administration

Wholesale Fuel Prices

Spot Prices	11/28/2012	11/19/2012	11/14/2012	11/7/2012	Year Ago
Crude Oil (Dollars per barrel) <i>West Texas Intermediate, job</i>	86.49	89.29	86.32	84.44	100.36
Natural Gas (Dollars per MMBtu) <i>Henry-Hub</i>	3.46	3.605	3.655	3.473	3.536

Source: the Wall Street Journal

Futures		12-Dec	12-Jan	13-Feb
Crude Oil (Dollars per barrel) <i>Light Sweet Crude Oil</i>	11/28/2012	86.32	86.75	87.31
	11/19/2012	86.67	89.29	89.29
	11/14/2012	86.32	86.75	86.75
Natural Gas (Dollars per MMBtu) <i>Henry-Hub</i>	11/28/2012	3.76	3.879	3.89
	11/19/2012	3.719	3.837	3.837
	11/14/2012	3.76	3.879	3.879
Propane (Dollars per gallon) <i>Mt Belvieu (OPIS)</i>	11/28/2012	0.921	0.915	0.93
	11/19/2012	0.881	0.898	0.898
	11/14/2012	0.915	0.931	0.931
Coal (Dollars per ton) <i>Central Appalachian</i>	11/28/2012	61.43	63.03	64.16
	11/19/2012	60.67	62.28	62.28
	11/14/2012	61.43	63.03	63.03

Source: CME Group

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