

Kentucky Energy Watch

Department for Energy Development and Independence

A snapshot of state and national energy issues



Algae - a breakthrough in carbon capture technology

A breakthrough in research at the University of Kentucky could lead to significant improvements in carbon capture technology. State officials joined UK representatives Oct. 21 to announce funding to scale up the technology's research, which uses algae to capture carbon dioxide from coal-burning power plants and convert it to biomass. The technology is so promising that the Kentucky Energy and Environment Cabinet is committing nearly \$1.3 million over two years for the UK Center for Applied Energy Research (CAER) to demonstrate the process at East Kentucky Power Cooperative's Dale Power Station in Winchester, Ky. EKPC is contributing in-kind costs to the project estimated at \$75,000, and UK is providing a \$543,663 cost share. (University of Kentucky News, Oct. 24, 2011)

Three Louisville companies to invest \$22 million, retain 340 workers, create 14 new jobs

A unique three-member partnership utilizing the state's first active energy services biomass project will bring \$22 million in investment and 14 new jobs to Louisville, Governor Steve Beshear announced yesterday. He joined community leaders and officials from The Lubrizol Corporation, Zeon Chemicals and Recast Energy to announce the partnership will also keep 340 Kentucky workers on the job. Lubrizol and Zeon are located adjacent to one another in west Louisville and share the use of steam and other utilities. Both facilities need steam, de-ionized water, waste water treatment and compressed air to operate. (TheLaneReport.com, Oct. 26, 2011)

KY Solar Power - still expensive but use is on the increase

Kentucky has more sunny days than you might think, say the state's solar power advocates. Arizona—ranked as the sunniest state in the nation by the National Weather Service—only has 44 percent more solar radiation than the Bluegrass State, according to Denis Oudard of Kentucky based Solar Energy Solutions. With billions of tons of coal reserves in the ground, Kentucky is known for being primarily a coal state. The state also has large natural gas reserves. But Oudard and his colleague, Andy McDonald of the Kentucky Solar Partnership, said solar is already at work at some Kentucky schools, homes and businesses, and is worth the investment—despite Kentucky's somewhat unpredictable weather. (FOX19, Oct. 26, 2011)

Geothermal potential reaches coast to coast

By sifting through oil and natural gas drilling data, a Google-funded study found that geothermal power in the U.S. could produce ten times the capacity of coal plants today. The Geothermal Laboratory at Southern Methodist University (SMU) yesterday revised estimates for the country's potential to use underground heat to make electricity. Drawing on geological data from some 35,000 sites as deep as 31,000 feet, the study concludes that geothermal could supply a large portion of U.S. electricity needs in the future. Most geothermal power plants are located in western states where underground temperatures are higher. But the SMU study found that new techniques make locations with temperatures as low as 100 degrees Celsius in much of the eastern U.S. viable. West Virginia, for example, has as much geothermal potential to match its mostly coal-based power supply. (cnetNews.com, Oct. 26, 2011)

Natural gas fluctuates after larger-than-forecast supply gain

Natural gas futures fluctuated between gains and losses in New York after a government report showing a bigger-than-forecast increase in U.S. stockpiles raised concern that supplies may reach record levels. Gas fell as much as 2.4 percent after the Energy Department said supplies rose 92 billion cubic feet last week to 3.716 trillion cubic feet, 124 billion short of the record set last November. Analysts expected an increase of 89 billion, based on median of 25 estimates compiled by Bloomberg. The five-year average gain for the week is 47 billion. "It was much higher than expected and pretty high for the time of year," said Peter Beutel, president of Cameron Hanover Inc., an energy advisory company in New Canaan, Connecticut. "It's almost double what the average gain is, and it was just more than the market could take right now." (Bloomberg Businessweek, Oct. 27, 2011)

Chemical board calls for safer oil, natural gas storage tanks after explosions in last 2 years

Explosions from oil and natural gas tanks tucked away in isolated areas killed 44 people in the last three decades, federal regulators said Thursday as they called on companies and officials to make the storage sites safer. Thousands of tanks are in places where young people hang out. Those killed were all 25 or younger, often at unsecured sites that did not have warning signs or fences, according to a report released by the U.S. Chemical Safety Board. Several of the explosions have been sparked by cigarette smoking. Three accidents in the last two years have highlighted the problems. An explosion in south Mississippi in 2009 killed two teenagers in a clearing in the woods near the small town of Carnes. Six months later, another person died while exploring a similar storage site in Oklahoma. (Associated Press, Oct. 27, 2011)

Wave energy: the latest battleground in the conservation vs. innovation debate

Whether it's the impact of solar farms on desert critters or the increase in bird and bat deaths linked to wind farms, renewable energy has long had a bit of a tenuous relationship with conservation. Although renewable energy advocates and conservationists are ostensibly on the same side, there's a tension there: To solve one environmental issue while creating another is unappealing at best and requires one to prioritize things like reducing carbon emissions and protecting habitat—aims most environmentalists consider equally important. While solar farms are moving ahead in North America's deserts, mounting concern over the environmental impacts of wind farms are stalling developments in Canada and the United Kingdom, as well as in Vermont. (Forbes, Oct. 27, 2011)

Kentucky Retail Fuel Prices (Dollars per gallon)

Product	10/26/2011	10/20/2011	10/13/2011	10/7/2011	Year Ago
Gasoline (State avg.)	3.365	3.392	3.398	3.249	2.734
Ashland	3.422	3.272	3.24	3.23	2.786
Covington	3.361	3.414	3.423	3.285	2.766
Lexington	3.372	3.393	3.438	3.244	2.717
Louisville	3.342	3.407	3.403	3.18	2.726
Owensboro	3.258	3.289	3.329	3.187	2.705
Diesel (State avg.)	3.802	3.791	3.737	3.737	3.034
Ashland	3.785	3.802	3.76	3.75	3.048
Covington	3.813	3.755	3.703	3.71	3.042
Lexington	3.817	3.807	3.737	3.741	3.044
Louisville	3.806	3.789	3.731	3.731	3.029
Owensboro	3.777	3.765	3.76	3.753	3.041

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,

Wholesale Fuel Prices

Spot Prices	10/27/2011	10/20/2011	10/14/2011	10/7/2011	Year Ago
Crude Oil (Dollars per barrel) <i>West Texas Intermediate, job</i>	90.2	86.11	84.23	82.59	81.94
Natural Gas (Dollars per MMBtu) <i>Henry-Hub</i>	3.656	3.598	3.455	3.49	3.364

Source: The Wall Street Journal

Futures		11-Nov	11-Dec	12-Jan
Crude Oil (Dollars per barrel) <i>Light Sweet Crude Oil</i>	10/26/2011	*	90.20	90.18
	10/20/2011	86.11	86.29	86.43
	10/13/2011	84.23	84.45	84.63
Natural Gas (Dollars per MMBtu) <i>Henry-Hub</i>	10/26/2011	3.59	3.775	3.911
	10/20/2011	3.586	3.813	3.95
	10/13/2011	3.531	3.814	3.971
Propane (Dollars per gallon) <i>Mt Belvieu (OPIS)</i>	10/26/2011	1.468	1.47	1.473
	10/20/2011	1.445	1.446	1.449
	10/13/2011	1.501	1.501	1.505
Coal (Dollars per ton) <i>Central Appalachian</i>	10/26/2011	72.92	72.67	73.22
	10/20/2011	73.07	72.78	72.77
	10/13/2011	73.84	73.73	73.9

Source: CME Group

* - Information Not Available



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