



Alternative Energy Report

January 3, 2008
Volume 2, Issue
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Record Oil Prices – Enough to Drive State Policy?

World oil prices hit \$100 on Wednesday for the first time in history, as consumers face gas prices 85 cents higher per gallon than last January. Similarly, home heating oil prices are at record highs. Meanwhile, our foreign oil bill is nearly one billion dollars a day and climbing. Increased oil prices and dwindling world reserves, combined with high costs to develop new reserves and instability around the globe are expected to create additional spikes in oil prices.

While \$100 may be a significant psychological benchmark, the real significance of oil prices lies in the new range over which they roam, Robert K. Kaufmann, director of the Center for Energy and Environmental Studies at Boston University told the Pittsburgh Post-Gazette. And some experts are saying \$100 is no longer a benchmark, or a plateau, but a baseline for the future.

At what point does the overwhelming evidence convince policy makers that things can't simply continue to go on the way things have always gone when it comes to fueling our transportation, heating and equipment needs? Virtually all major presidential contenders are saying that this most recent surge in oil prices is proof that the federal government needs to take even more aggressive action to increase our energy security. This energy attention is partly because the Iowa caucuses are being held in a state where ethanol and biodiesel have found a home both on the farm and in the manufacturing sector. But with record costs incurred daily, energy issues are increasing their impact on the economy across the board. And despite the recently signed Energy Act and support for increases in clean-burning ethanol and biodiesel, the impact of these moves won't be felt for years.

At the state level, much of the discussion about the need for energy security policies has been driven by fears of increased costs when electric rate caps come off in 2010. Behind the scenes negotiations continue to drag on dollar signs and debates over who should pay for smart meters. Meanwhile, one must wonder why a 40% increase in fuel prices in one year hasn't gotten more attention from elected officials. Every week, it becomes more obvious that alternative fuels have an even greater role to play in our energy future, regardless whether you think the ultimate solution is ethanol, biodiesel, butanol, propane or hydrogen. The demand for these products will be further fueled by the federal Renewable Fuel Standard increases incorporated in the Energy Act. The question that remains is whether Pennsylvania will be in a position to benefit economically from this opportunity.

It's obvious that our farm and forest industries and ethanol and biodiesel companies are capable of rising to the challenge to provide a home grown renewable energy product which can alleviate some of the pain caused by energy dependence on off-shore sources. For example, US ethanol production increased again in October to 452,000 barrels per day, according to the Energy information Administration, while ethanol demand also increased to 484,000 barrels per day. Ethanol stocks stood at 23.6 days of reserves. According to the US international Trade Commission, the difference was being made up by imports of fuel ethanol totaling 37.3 million gallons.

The US ethanol industry is rapidly expanding its ability to produce, and the billions of dollars being invested by the industry in research into cellulosic ethanol are a sure sign that the industry is responding to the needs and desires of the marketplace. Putting the focus on developing ethanol production from resources beyond the traditional corn base, the federal government has established a plan to begin improving our green footprint with this fuel. Experts from around the county have identified Pennsylvania as a key site for establishment of both destination ethanol plants and cellulosic ethanol production because of the state's biomass and forest resources. In recent weeks, two more proposed ethanol facilities made the news in southeastern Pennsylvania. And several Pennsylvania companies are working diligently on plans to convert waste to ethanol.

However, at the state level, legislation passed to date has bypassed ethanol entirely, and no ethanol facilities have opened in the state. The two Senate bills relating to biofuels that moved from the Chamber in December had no mention of ethanol or any increase in prospective incentive payments for ethanol. And the biofuels legislation passed by the House last June did not address incentives for ethanol production, instead focusing on mandates.

Biodiesel production is similarly increasing, nationwide, but to a lesser degree. In the past three months, PA's annual production capacity has jumped from 2-3 million gallons to almost 60 million gallons with the opening of PA Biodiesel and Lake Erie Biofuels. But Pennsylvania companies face both natural and policy based market disadvantages. Midwest biodiesel companies have a ready source of soy oil, while PA firms must import the oil from other states or use other feedstock sources. And many Midwestern states have established tax credit and other incentive programs for manufacturers, blenders and distributors that Pennsylvania to date has been unable to match.

The future of biodiesel feedstock and production may be changing like ethanol however, as companies search for new methods and new ways to generate cost-efficient feedstock. State support for development of alternative feedstock sources has been lacking, but private industry and academia have been working hard on projects ranging from new seed oil crops like canola and camelina, to other potential sources such as biomass and algae.

The program passed by the Senate in December actually provides less incentives per gallon to companies which have invested in the Commonwealth and are able to produce more than seven million gallons per year. This makes it more difficult for companies who are capable of producing the millions of gallons of biodiesel needed in the marketplace. The 75 cents per gallon incentive for production, which is significantly more than any other state, reduces to as little as five cents per gallon produced as production increases.

Other potential alternative fuel sources such as butanol, propane and hydrogen have not been addressed.

As the House and Senate take up their 2008 version of a special session on energy, ERG has encouraged development and funding for state programs that support development of new feedstock sources and provide fair incentives to help all Pennsylvania based biodiesel facilities compete in the marketplace.

17 Lawmakers Announce Plans to Retire or Seek New Offices

With the first date for circulating petitions for the ballot less than three weeks away, thirteen incumbent members of the State House of Representatives and four State Senators have formally announced they will not run for re-election in 2008. A dozen officials have announced their retirements and two House members will run for open Senate seats. As of January 4, Reps. Tom Tangretti, D-Westmoreland, Tom Yewcic and Ed Wojnaroski, D-Cambria, Jerry Nailor, R-Cumberland, Carole Rubley and Art Hershey, R-Chester, David Steil, R-Bucks, Bob Bastian, R-Somerset, Steve Nickol, R-York, Lisa Bennington, D-Allegheny and Ron Raymond, R-Delaware, had announced plans to retire this year. State Senators Roger Madigan, R-Bradford, Connie Williams, D-Montgomery, Gerald LaValle, D-Beaver, and Gib Armstrong, R-Lancaster have all announced their retirement plans.

State Reps. Daylin Leach, D-Montgomery, and Steve Cappelli, R-Lycoming, will run for the Senate seats being vacated by Sen. Connie Williams and Sen. Roger Madigan, respectively.

Further announcements can be expected as the petition filing date approaches.

Erie Renewable Energy Submits Air Quality Permit Application

Erie Renewable Energy (ERE) recently submitted an air quality permit application to DEP for its proposed tire-to-energy plant. ERE plans to generate 90 megaWatts of electricity annually through capture of heat from the circulating fluidized bed boiler system for combustion of waste tire chips.

The facility, a joint venture of Conservation Development Associates, LLC of Erie and Caletta Renewable Energy, LLC, of Canton, Massachusetts will generate approximately 710,000 megawatt-hours of electricity per year (enough power to serve approximately 75,000-85,000 homes) from about 72,000 tires per day. The plant is expected to be operational before the end of 2010, which is when the electric rate caps in northwest Pennsylvania will expire.

The plant will be located at the former International Paper site in Erie, a site with existing infrastructure, including rail service and an electric substation; a nearby supply of water; and, as a brownfield, it is part of Pennsylvania's Land Recycling program.

Once an administrative review by the DEP is completed, the department will begin a technical review that will assess the proposed technology and operation and maintenance issues. The process may take several months. DEP has scheduled a public meeting on the application on January 23, at Iroquois High School in Erie County.

Pennsylvania Joins Suit Against EPA Greenhouse Gas Ruling

As predicted by ERG last year, Governor Edward G. Rendell confirmed this week that Pennsylvania is joining a multi-state lawsuit against the U.S. Environmental Protection Agency seeking authority for states to take the lead and impose regulations stricter than federal rules.

On Dec. 19, EPA denied California's request for a waiver, a decision which prevented it and other states from implementing stricter greenhouse gas emissions standards for cars that would have been put into effect as early as 2009.

The lawsuit, which seeks to reverse the EPA decision, was filed in the 9th U.S. Circuit

Court of Appeals by California. In addition to Pennsylvania and California, other states intervening in the suit are: Arizona, Connecticut, Delaware, Illinois, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont and Washington.

Under the federal Clean Air Act passed in 1963, California is expressly allowed to impose environmental regulations that are stricter than federal rules in recognition of the state's "compelling and extraordinary conditions," which include unique topography, climate and high number and concentration of vehicles.

In the 40-year history of the act, EPA has granted approximately 50 waivers to California for innovations like catalytic converters, exhaust emission standards, and leaded gasoline regulations. Until last month, a waiver request had never been denied.

Two Ethanol Facilities Planned for Lower Bucks County

The Bucks County Courier Times reports that Rohm and Haas has agreed to sell 114 acres along the Delaware waterfront for use as an ethanol and biodiesel plant to North American Alcohols. The company's president, Stephen Reiser formed the company to produce fuel grade ethanol and by products. North American Alcohols would be the second ethanol facility planned for construction in Lower Bucks County.

In late fall, another ethanol company, American Biofuel, won approval from the Falls supervisors to construct an ethanol plant at the former USX site now the Keystone Industrial Port Complex.

"This deal is in the very, very early stages," said Carolyn Gilotti, communications director for North American. "We're going to do everything in the planning of this facility to make sure there is little or no impact on those living near the plant."

The agreement of sale with North American Alcohols doesn't allow the company to build in the area known as Maple Beach until late 2009, according to Rohm and Haas. North American agreed to buy the land based on the condition that it gets all necessary approvals from local officials and environmental regulators.

Ethanol Plant Gets Zoning OK, Again

In December, after a two-hour public meeting, the Mayfield Borough Council voted 5-2 to accept an amended zoning ordinance in favor of Northeast Ethanol and Renewable Resources. The decision affirmed the rezoning of 38 acres to industrial from residential, and it adds new language that voids prior height restrictions and expands the definition of manufacturing, further opening the door for a proposed ethanol plant.

According to Richard Scheller, CEO of Northeast Ethanol, the amended language both allows his company to keep costs down and would ease the project's progress.

Many members of the community who are opposed to the pending ethanol plant were on hand to protest and according to The Times-Tribune, crowd members called for the council to table a decision until January, when a new council takes office. The majority of new council members have already voiced their opposition to the ethanol plant.

Algae Biofuel Plant Moving to PA; Researchers Compete to Make Algae Biofuel Commercially Viable

Scientists are working to turn algae into a commercially viable energy source — some varieties of algae are as much as 50% oil, which can be converted into biofuel. As with many renewable energy projects, the biggest challenge is reducing the cost of production. The federal government halted its main algae research program nearly a decade ago, but technology has advanced and oil prices have climbed since then, prompting renewed research.

According to a recent article in the Seattle Post Intelligencer, researchers are trying to figure out how to grow enough of the right strains of algae and how to extract the oil most efficiently. If production costs can be brought down, algae's advantages include growing much faster and in less space than conventional energy crops. One acre of corn can produce about 20 gallons of oil per year, compared with a possible 15,000 gallons of oil per acre of algae.

In October, a biofuels company received a \$1 million Alternative Fuels Incentive Grant (AFIG) from the state for algae-based production of biodiesel fuel. Alternative Fuels Inc., formerly of Binghamton, NY, plans to set up shop in Pennsylvania, possibly in Luzerne County, in the near future. Alternative Fuels is expected to produce more than 25,000 gallons per day of fuel derived from algae at its planned biodiesel plant, which will require about 200 tons of algae per day, according to the company's principal.

Report Says States Falling Short on Easy Grid Access for Home-Grown Renewable Energy Systems

A new report, "Freeing the Grid," concludes that all 50 states are failing to provide easy access to the electrical grid for home-grown renewable energy systems, while only four states are doing their best to assure that the owners of such systems earn credit for power fed into the grid.

The report is an update of a 2006 report and is prepared by the Network for New Energy Choices, the Interstate Renewable Energy Council (IREC), the Vote Solar Initiative, and the Solar Alliance. The report finds that as of September 2007, only 34 states and the District of Columbia had statewide interconnection policies, and of those, 8 states and the District of Columbia received failing grades.

GRANTS

EPA Offers Up to \$7 Million in Grants for Methane to Markets Partnership

Earlier this month, EPA made up to \$7 million available through a grant solicitation for innovative international projects and activities as part of the Methane to Markets Partnership. The agency expects to award approximately 40 cooperative grants agreements ranging from approximately \$100,000 to \$700,000. The Methane to Markets partnership is an international initiative to reduce global methane emissions by promoting capture-and-use projects in oil and gas systems, coal mining, landfills, and animal waste management.

The estimated project period for awards is September 2008 through September 2011. Proposals are due by Feb. 22, 2008 at 4 p.m. EST. Click [here](#) for more information.

Defense Advanced Research Projects Agency Grants

Defense Advanced Research Projects Agency (DARPA) is soliciting innovative research proposals in the area of technologies that enable the affordable production of a surrogate for petroleum based military jet fuel (JP-8) from agricultural or aquacultural

crops that are non-competitive with food material. This current solicitation expands the scope of the BioFuels program described in BAA06-43 to additionally focus on: (1) processes for the affordable and efficient conversion of cellulosic materials to JP-8, and (2) processes for the affordable and efficient production of algal feedstock material for conversion to JP-8. Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems.

For more information, click [here](#), or contact Douglas Kirkpatrick, Program Manager, at (703) 526-4762 or Douglas.Kirkpatrick@darpa.mil.

EPA Announces Grant Competition for Community Organizations Wanting to Reduce Pollution at Local Level

The U.S. Environmental Protection Agency has announced that an estimated \$3 million will be available in 2008 for community organizations wanting to reduce pollution locally in their neighborhoods.

Through its Community Action for a Renewed Environmental (CARE) program, EPA is currently accepting proposals to support community-based partnerships. Proposals are due by March 17. EPA will conduct three conference calls on Jan. 18, Feb. 11 and Feb. 27 for prospective applicants to ask questions about the application process.

More information and the 2008 Request for Proposal can be found at www.epa.gov/care.

EVENTS

25x'25 Alliance Meeting

The Pennsylvania 25x'25 Alliance will hold its quarterly meeting from 10:30 am to 11:30 am on January 10 in Room D of the Pennsylvania Farm Show Complex. The meeting is open to the public. The alliance will discuss its 2007 successes and plans for the upcoming year.

The 25x'25 alliance seeks to have 25 percent of America's energy come from renewable sources by the year 2025, a policy endorsed by President Bush and Congress with passage of the Energy Independence Act this week. To learn more, visit www.25x25.org or stop by their booth in the Renewable Energy section of the Farm Show complex anytime from 9 am to 8 pm January 5-12.

Financial Services, Insurance Webinars for Biodiesel Producers

The AllThingsBiodiesel.com Web site, through the National Biodiesel Board (NBB), has teamed up with two more NBB members in offering valuable, free webinars to those in the biodiesel industry. Interested parties can virtually attend webinars on financial services/lending and risk management/insurance for biodiesel companies.

January 17, [Huntleigh McGehee](#), a full-service insurance broker, will present the webinar, "Is Your Investment Property Insured?" on insurance and risk management will cover various types of coverage, what coverage is right for various business sizes, and more. The presentation will offer information on proper valuation of property, business interruption/extra expense and coinsurance.

January 24, [Biodiesel Financial Services](#), under parent company Vendor Lease Management Group, will host the webinar, "Financing Options for Equipment Acquisition." Biodiesel Financial Services, in "Financing Options for Equipment Acquisition," will cover where companies can get financing for things other than construction, with options such as banks, loan companies, shareholders and other

innovative ways. It will also discuss types of lease financing available and their different structures.

To register and for details, visit "[Financing Options](#)" and "[Investment Insured Properly](#)." Biodiesel Financial Services and Huntleigh McGehee will provide more webinars later as requested.

January 7-12, Duke Short Course Promotes Wood As a Carbon Neutral Fuel

The Duke Environmental Leadership program is hosting a six day short-course on Affordable Energy, Forest Health and Community Sustainability January 7-12. The course reflects the fact that a synergy exists which has allowed people in many advanced countries to build markets for poor quality trees and waste wood as a carbon neutral renewable fuel, providing money to fund forest improvement and restoration practices.

The short course should be beneficial to those on the energy using side for heating and cooling. Completion of the course will include a certificate that can be used by energy and HVAC design professionals needing Professional Development Hours for their licensing or registrations in most states. CFE credits for foresters and SFI credits for timber harvesting operations have also been applied for. More information is available by contacting the Duke Environmental Leadership Program at del@duke.edu or (919) 613-8082.

March 4-6, Washington International Renewable Energy Conference 2008 (WIREC), Washington, D.C.

WIREC 2008 will focus on the four pillars necessary to support renewable energy industries: Agriculture and Rural Development, Technology/Research and Development, Finance, and Commercialization. Click [here](#) for more information.

April 15-17, Biomass '08 Conference and Trade Show, Minnesota.

The first International Biomass Conference & Trade Show aims to facilitate the advancement of near-term and commercial-scale manufacturing of biomass-based power, fuels, and chemicals. Click [here](#) for more information.

February 21, Environmentalist to Discuss Building the Green Economy

Noted environmental leader, civil rights attorney and public speaker Van Jones will talk about a national "green-collar jobs" initiative at a presentation Thursday Feb. 21 at the Academy of Natural Sciences in Philadelphia.

Jones is the president of the Ella Baker Center for Human Rights in Oakland, Calif. The center promotes integrated solutions to urban America's toughest problems: social inequality and environmental destruction. Working with the Apollo Alliance, Van is promoting the initiative that he hopes will create "green pathways out of poverty," while greatly expanding the coalition fighting global warming.

The presentation begins at 6:30 p.m. in the academy's main auditorium. The event will be preceded by a reception at 6 p.m. For more information, visit the Academy of Natural Sciences' [Town Square Program](#). RSVP is required.

January 16, ABA Renewables Teleconference

The American Council On Renewable Energy (ACORE), in collaboration with the American Bar Association's (ABA) Renewable Energy Resources Committee will host a teleconference entitled "Emerging Capital Sources for Renewables." The event takes place on Wednesday, January 16 from 12:00-1:30 pm ET. There is a \$25.00 fee to participate. Click [here](#) for more information.



NEWS CLIPS

[The Costs of Biofuels](#)

[Don't blame hikes on power competition](#)

[It's law; now what?](#)

[Supervisors want to buy bigger solar panel](#)

[Hot issue in townships: Where there's fire, there's smoke](#)

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