

September 2015



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India

Policy Initiatives

UP to announce Biomass Energy Policy 2015

Uttar Pradesh is targetting 1,000 megawatt (mw) of biomass energy under the new UP Biomass Energy Policy 2015, which is being finalised.

The government is mulling providing 100% stamp duty on acquiring private land for setting up biomass power plant. If such plant is set up under a joint venture with state nodal agency UP New and Renewable Energy Development Agency (NEDA), the latter would provide land as its equity share.

The draft policy is ready and now NEDA is soliciting suggestions from experts and general public before the government implements it. The policy would be effective for the next 10 years and be subject to amendments. The dual purpose of the policy would be to meet a part of energy demand-supply gap in UP and to encourage renewable energy resources.

http://www.business-standard.com/article/economy-policy/up-to-announce-biomass-energy-policy-2015-115082800818_1.html

PM Modi favours export of surplus sugar, ethanol blending

Prime Minister Narendra Modi on Saturday favoured raising sugar exports to liquidate surplus stocks because of low domestic demand that has led to a huge cane arrears of over Rs 14,000 crore to farmers.

Modi chaired a meeting of ministers and officials to review issues related to the sugar sector where he called for increasing the ethanol-blending with petrol.

<http://www.dnaindia.com/money/report-pm-modi-favours-export-of-surplus-sugar-ethanol-blending-2110226>

India 's OMCs launch first biodiesel tender at 850 million liters

In India, oil manufacturing companies have launched the country 's first tender for biodiesel, seeking to procure 850 million liters from local producers between now and Marh 2016. Bids are to be submitted online by Aug. 19. The policy is meant to help with local Price discovery ahead of a potential 20% blend for biodiesel in 2017. A 20% blend for ethanol has also been proposed but is unlikely due to the fact that the current 5% blend has yet to be reached.

<http://www.biofuelsdigest.com/bdigest/2015/08/03/indias-omcs-launch-first-biodiesel-tender-at-850-million-liters/>

India launches biodiesel programme

India launched biodiesel programme as part of its efforts to cut energy imports and carbon emissions. As part of the initial run, the biodiesel B 5 blend will be sold to customers in some retail outlets of state-owned oil marketing companies (OMCs) in New Delhi, Vishakhapatnam, Haldia and Vijayawada.

<http://www.livemint.com/Industry/bAAh2RN5uZb2juuCeOrULM/India-launches-biodiesel-programme.html>

India's B5 program could ease crude palm oil surplus in Southeast Asia: Market sources

India's newly launched biodiesel mandate would have limited impact on the region's balances but could potentially help ease Malaysia's crude palm oil surplus, market participants said Tuesday.

<http://www.hellenicshippingnews.com/indias-b5-program-could-ease-crude-palm-oil-surplus-in-southeast-asia-market-sources/>

India set to implement E10 mandate from October, reducing up to \$1.7 billion in forex for oil imports

In India, the Government has announced an E10 blending mandate from October's start of the 2015/16 cane crop in an effort to boost the economic viability of sugar mills that are currently drowning in debt due to high sugarcane prices, also mandated by the government. Demand will double to 2.3 billion liters from the current E5 level. As a result, sugar production should fall by around 1.5 million metric tons. McKinsey estimates that the policy could lead to savings of \$1.7 billion a year of forex from avoided oil imports.

<http://www.biofuelsdigest.com/bdigest/2015/08/11/india-set-to-implement-e10-mandate-from-october-reducing-up-to-1-7-billion-in-forex-for-oil-imports/>

India drops excise tax for ethanol used for blending in 2015/16

In India, the cabinet committee on economic affairs has approved a number of measures to help support the flailing sugar industry including waiving the excise duty of all ethanol that will be used to supply the domestic blending mandate of 10% beginning in October. With the floor price for ethanol fixed, inclusive of taxes, the waiving of excise taxes is meant to ensure that more money per liter reaches the actual mills.

<http://www.biofuelsdigest.com/bdigest/2015/08/13/india-drops-excise-tax-for-ethanol-used-for-blending-in-201516/>

India's Central Railways move forward with biodiesel production

In India, Central Railways has produced 20,000 liters of biodiesel from edible oils during its first year producing the fuel. The state-owned company would like to boost production but says there is a lack of available feedstock supply. So will soon begin a program to collect used cooking oil from restaurants that it hopes will be donated to the biofuel program.

<http://www.biofuelsdigest.com/bdigest/2015/08/10/indias-central-railways-move-forward-with-biodiesel-production-but-lack-feedstock/>

Punjab, Maharashtra show the way in harnessing agri-waste

While Punjab and Maharashtra have taken a lead in setting up biomass plants with attractive

power tariff, other major states like Uttar Pradesh, Haryana, Gujarat and Madhya Pradesh - which contribute half to India's annual agricultural waste worth Rs 50,000 crore - are lagging behind primarily because of low tariff.

According to a review by the ministry of new and renewable energy, the tariff is as low as Rs 2.2 in Kerala, Rs 3.3 in Madhya Pradesh, Rs 3.6 in Karnataka and Rs 4 in Uttar Pradesh. On the other hand for similar technical use to generate power, Punjab has fixed a tariff at Rs 5.05 per unit and Maharashtra at Rs 4.98 per unit, thus making them attractive destination for investors in the new-age green power.

To provide a level-playing field across the states and give them an incentive, the government had planned to set up a national biomass mission to harness 620 million tonnes of bio-resources. The mission, which was to be announced in the 12th Five Year plan (2012-17), has been delayed and officials say that a lack of enough public resources to fund it is the main cause.

<http://www.hindustantimes.com/sustainable-development-goals/punjab-maharashtra-show-the-way-in-harnessing-agri-waste/article1-1381445.aspx>

Government seeks comments on reframing National Biofuel Policy

The government has sought public comments on proposed changes in the National Policy on Biofuels that seeks allowing producers directly sell fuel to consumers especially bulk customers like railways.

<http://economictimes.indiatimes.com/news/economy/policy/government-seeks-comments-on-reframing-national-biofuel-policy/articleshow/48546571.cms>

India to invest \$1.53 billion to support farmers growing oil palm

India to invest \$1.53 billion to support farmers growing oil palm. Nine states have been identified as potential areas to grow oil palm, and already there are concerns in the market that a major push into palm oil will weigh on prices in Indonesia and Malaysia that are already suffering from oversupplies that have led to their own governments boosting biodiesel blending mandates.

<http://www.biofuelsdigest.com/bdigest/2015/08/19/india-to-invest-1-53-billion-to-support-farmers-growing-oil-palm/>

Isro, Nasa's Nisar Earth Observation Satellite to be launched in 2021

India and US have set a target of 2021 to put their collaborative earth observation satellite Nisar in orbit, Isro Chairman A S Kiran Kumar said.

Isro has identified a range of applications of particular relevance to India that the mission will address, including monitoring of agricultural biomass over India, snow and glacier studies in the Himalayas, Indian coastal and near-shore ocean studies, and disaster monitoring and assessment.

<http://gadgets.ndtv.com/science/news/isro-nasas-nisar-earth-observation-satellite-to-be-launched-in-2021-733499>

India is looking to buy 2.7 billion liters for blending but no imports allowed

Oil marketing companies have issued a tender to buy 2.7 billion liters of ethanol only from domestic sources, with imports ruled out. The fuel is meant to supply 10% of gasoline demand between December this year through November 2016.

<http://www.biofuelsdigest.com/bdigest/2015/08/27/india-looking-to-buy-2-7-billion-liters-for-blending-but-no-imports-allowed/>

Nagpur unilaterally decides to move forward with ethanol bus project

Nagpur Municipal Corporation has gone ahead and unilaterally approved a number of policies at a recent council meeting including the ethanol bus program and the feasibility study for the project. The city has already sought Federal Government permission to buy 55 ethanol buses as well as change the bus operator.

<http://www.biofuelsdigest.com/bdigest/2015/08/24/nagpur-unilaterally-decides-to-move-forward-with-ethanol-bus-project/>

State oil firms like BPCL, HPCL seeking to buy 266 crore litres of ethanol

State-run fossil fuel retailers have initiated a move to buy 266 crore litres of ethanol to blend with petrol and meet the 5% blending norm. The purchase could ease pressure on the sugar industry which is grappling with excess production.

<http://economictimes.indiatimes.com/industry/energy/oil-gas/state-oil-firms-like-bpcl-hpcl-seeking-to-buy-266-crore-litres-of-ethanol/articleshow/48696862.cms>

Biogas plant fuels 123 homes

Situated amid the lush green hills, Paivihir is a small and remote tribal village in Chikhaldara tehsil of Melghat. The villagers had to face difficulties in collecting dry firewood for cooking during monsoon. But now, families in all the 123 hutments no longer have to worry, for the gram sabha has installed a community biogas plant at an expenditure of about 40 lakh to tide over the problem. Today, stoves in all these 123 houses do not go cold as the entire village is reaping the benefit of the project.

<http://timesofindia.indiatimes.com/city/nagpur/Biogas-plant-fuels-123-homes/articleshow/48688759.cms>

How India can cut short-term carbon emissions by 70%

As India works on its voluntary commitments to reducing its greenhouse gas emissions, Indian experts have explained how the country could cut its carbon emissions from short-lived climate pollutants by nearly three-fourths using low-cost methods and, in the process, transform the lives of the poor.

The US, EU and China are among the major countries which have declared their commitments; the global community is waiting to see what India does. India has already indicated that it is going to take minimalist steps as regards its "Intended Nationally Determined Contributions" or INDCs (as they are known in United Nations negotiations), as environment minister Prakash Javadekar said. India will take a further cut on its emissions intensity – the amount of energy used to produce a unit of GDP—from 20-25% on 2005 levels to around 35-40%.

<http://scroll.in/article/750847/how-india-can-cut-short-term-carbon-emissions-by-70>

New report sheds light on India's biomass power market

Market Research report On "India Biomass Power Market Market 2014 Forecast 2025" is a professional and Deep research report On Market Size, Market Trend, market Analysis, Market Forecast.

The research details renewable power market outlook in the country (includes wind, small hydro, biopower and solar PV) and provides forecasts up to 2025. The report highlights installed capacity, power generation, biopower market segmentation based on feedstock, and number of homes powered during 2001-2025 in India biomass power market.

<https://www.whatech.com/market-research/green-technology/87191-new-report-sheds-light-on-india-s-biomass-power-market>

Algae.Tec projects in India, US on track for startup this year

Algae.Tec Ltd. recently announced two business updates regarding its partnership with India-based Reliance Industries Ltd. and new plans for the company's test facility in the Atlanta, Georgia, area.

In Jamnagar, India, the company reported that seven containers of equipment, including the photobioreactor module and solar light units, have been shipped on schedule and received at Reliance's oil refinery. Ground works, equipment erection and plant construction are underway with commissioning of the plant expected to be completed this quarter.

<http://www.biodieselmagazine.com/articles/470146/algae-tec-projects-in-india-us-on-track-for-startup-this-year>

Culturing Solutions, in a JV with Algae Biotech India, is breaking ground on a commercial algal production facility in Hyderabad, India

This project is a multi-phase commercial development. The first Phase will be a commercial production module using the PhytaPlatform, Culturing Solution's proprietary tubular Photobioreactor, and the PhytaPond, its proprietary closed looped hybrid photobioreactor.

Phase I will also focus on the cultivation of Spirulina for the aquaculture, nutraceutical, and feed markets. Phase II will start on the cultivation for Haematococcus pluvialis for the production of astaxanthin in a 33 hectare algal production facility. In addition, Phase II will see the expansion of the Spirulina cultivation and the production of Chlorella to 10 hectares Chlorella. This increase in production will be sold into the food and feed markets. A rapid reproducing strain of algae will be utilized for the production of Biocrude oil by means of Hydrothermal-liquefaction (HTL).

Culturing Solutions has developed a hydrothermal-liquefaction process that uses solar concentrators to convert raw algal biomass and other biomass into biocrude. Culturing Solutions will use municipal and agricultural waste streams as a nutrient source for the biocrude production. Phase III will be the construction of a biofuels refinery that will use algal-based biocrude as its feedstock to produce gasoline, diesel, and naphtha. The projected capacity of the refinery will be for 400 million liters per year of combined biofuels. The algal production will use waste streams from municipalities and agriculture as its nutrient source. These biofuels will be used locally within India.

<http://www.thefishsite.com/fishnews/26149/sustainable-fish-feed-and-fuel-for-india/>

Bengal gears up for cheaper biogas option, may drop LPG usage

Phoenix India Research & Development Group has set up a plant at Gunduba village under Birbhum's Dubrajpur police station and will be supplying biogas cylinders to distributors in the state. So, residents will be able to get their cooking gas for just Rs 300.

One biogas cylinder is equivalent to 14.2 kg of LPG," said Jyoti Prakash Das, the chairman of Phoenix India Research & Development Group. He added, "We have plans to set up 19 such plants in the 19 districts of the state by 2020." The company set up its first biogas plant at Gujarat in 2008.

This plant will produce 3,000 cylinders of biogas per day, which will be distributed in several parts of the state. As the cylinders are made with FRB material, they are light in weight than the conventional LPG cylinder. According to the company, at present they have distributors at Nadia, Hooghly, North and South 24-Parganas, East and West Midnapore, Murshidabad and Birbhum districts. Later, they will scout for distributors in other districts.

<http://www.hindustantimes.com/kolkata/bengal-gears-up-for-cheaper-biogas-option-to-drop-lpg-usage/article1-1383248.aspx>

Orient Green Power to raise Rs 250 crore on preferential basis

<http://profit.ndtv.com/news/corporates/article-orient-green-power-to-raise-rs-250-cr-on-preferential-basis-1208996>

Indian companies see business sense in tackling climate change

The Indian industry has slowly become aware of the fact that it has to play a larger role in tackling climate change and seems to have taken up the opportunity to make a difference by adopting initiatives and innovations that make business sense as well.

"Understanding that low carbon means more efficient operations is driving industries now," says Santhosh Jayaram, director (sustainability) at KPMG.

<http://www.hindustantimes.com/sustainable-development-goals/indian-companies-see-business-sense-in-tackling-climate-change/article1-1383695.aspx>

Finance and Investment

IFAD to fund Karnataka biofuel program with \$50 million soft loan

The International Fund for Agricultural Development will lend the Karnataka government \$50 million at 1% interest to further develop its biofuel program. The financing that will be paid back over 50 years will go to feedstock development as well as biofuel processing. Currently, 33 biofuel centers across the state have been set up to demonstrate biofuel production at the community level, producing about 100 liters of biodiesel per day, but they will be scaled up under the new program.

<http://www.biofuelsdigest.com/bdigest/2015/08/20/ifad-to-fund-karnataka-biofuel-program-with-50-million-soft-loan/>

\$50mn for biofuel board

Karnataka's much-touted biofuel development programme is set for a \$50 million funding from International Fund for Agriculture Development (IFAD).

Offered as a soft loan with 1% interest with a 50-year repayment period, the state government has started processing the papers, which will be forwarded to the Union ministry of agriculture for approval, said A K Monappa, managing director, Karnataka State Biofuel Development Board.
<http://timesofindia.indiatimes.com/city/mangaluru/50m-for-biofuel-board/articleshow/48618044.cms>

Primarc invests in waste management start-up 'Sampurn(e)arth'

Kolkata based Primarc Group invested in waste management Start-up Sampurn(e)arth along with Ah!Ventures and I3N.

A TISS (Tata Institute of Social Science) incubator project, Sampurn(e)arth was launched in 2012 with an objective of making solid waste management efficient, decentralised and even profitable.
http://www.indiablooms.com/ibns_new/life-details/L/1161/primarc-invests-in-waste-management-start-up-sampurn-e-arth.html

Research and Development

Clean energy: Foreign scientists offer help

Scientists from Hungary have offered to set up clean and green energy technologies, including affordable water purification, generation of portable power from sunlight and biomass, retrieving energy from polymer waste and biodiesel in Punjab.

<http://timesofindia.indiatimes.com/city/chandigarh/Clean-energy-Foreign-scientists-offer-help/articleshow/48313486.cms>

IIT BHU backed Bridgedots develops innovative technologies in Cleantech field

Founded in the year 2011 by IIT BHU alumni Tanmay Pandya and Nikhaar Jain, Bridgedots is a technology research startup which that provides the needed link between industry and academia. It has developed innovative technologies to address technical problems of the industry with the help of professors and research scientists.

Mr. Pandya says, the major focus areas of Bridgedots are chemicals, polymers, advanced materials and waste. We identify the technical problems in these areas and develop the technology while working with professors and scientists.

<http://yourstory.com/2015/08/bridgedots/>

Global

Policy Development

UK to build world's first power plant with negative emissions

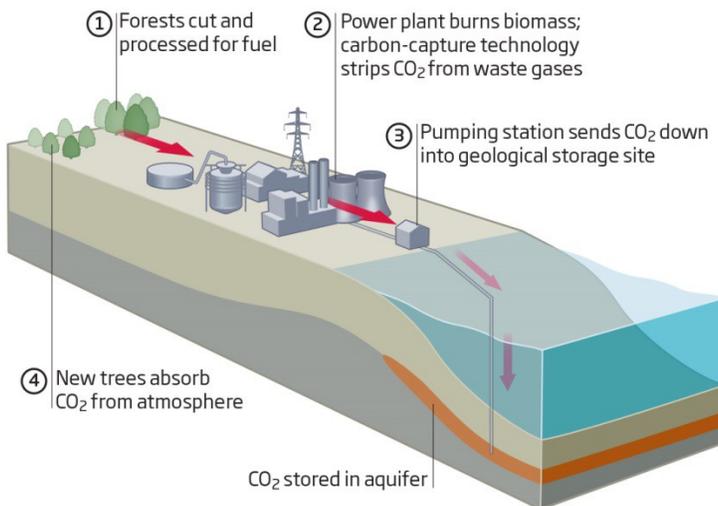
IT IS the dream scenario for fighting climate change: a power station that delivers negative emissions. And it could be coming to the UK, helped along by the growth of forests in the American South and some handy holes beneath the North Sea.

The giant coal power station at Drax in Yorkshire, with its 12 cooling towers, is one of the world's largest greenhouse gas emitters. It sends some 23 million tonnes of carbon dioxide up its stacks each year, while supplying up to a tenth of the UK's power.

Its owners are now planning to replace coal with wood pellets and bury the emissions. Combined with growing trees to replace all those burned, the mega-polluter could one day be transformed into the world's largest industrial absorber of CO₂.

Power without emissions

A new power station at Drax will burn wood pellets then capture the carbon dioxide released. The CO₂ will then be sent to a salt water aquifer under the North Sea, while new forests will suck more CO₂ out of the atmosphere



<https://www.newscientist.com/article/mg22730334-800-uk-to-build-worlds-first-power-plant-with-negative-emissions/>

A straw pelleting plant near Ely won approval from East Cambs District Council

Norwich based Pelco will start work shortly on the plant and hope to have it ready by November next year. The company says that over the course of a year the plant, which would be 100m long and have a tower 47m high, would process around 150,000 tonnes of wheat and oil seed rape straw gathered from farms within a 50-mile radius.

http://www.elystandard.co.uk/news/business-news/approved_pelco_s_pellet_plant_for_ely_that_will_process_150_000_tonnes_of_wheat_and_oil_seed_rape_straw_a_year_1_4184099

Trane New England to install biomass heating system

A warm and comparatively comfortable winter may await students at the Overlook Middle School in Ashburnham, as the district nears the final steps in installing biomass boilers to heat the building.

http://www.lowellsun.com/green/ci_28577279/trane-new-england-install-biomass-heating-system

FERC: 128 MW of biomass capacity added during first half of 2015

The Federal Energy Regulatory Commission's Office of Energy Projects has released the June edition of its Energy Infrastructure Update, reporting the U.S. added 128 MW of installed biomass capacity during the first half of this year.

According to the report, one biomass unit with 95 MW of capacity was added in June, along with one 15 MW natural gas unit, three wind units with a combined capacity of 320 MW, and five solar units with a combined 62 MW of capacity. Overall, 10 units were added during the month, with a combined capacity of 491 MW. No coal, nuclear, oil, water, geothermal steam, waste heat or other units were installed in June.

<http://biomassmagazine.com/articles/12224/ferc-128-mw-of-biomass-capacity-added-during-first-half-of-2015>

Enviva applauds EPA on Clean Power Plan

Enviva applauds the steps the U.S. Environmental Protection Agency is taking with the Clean Power Plan and its recognition of the role biomass can play in tackling climate change.

"Converting coal-fired plants to dedicated or co-fired biomass plants is one of the quickest and most cost-effective ways of achieving substantial reductions in emissions of carbon dioxide and other pollutants," said John K. Keppler, Chairman and CEO of Enviva. "Countries around the world are turning to biomass – increasingly wood pellets – as a renewable, low-carbon source of base load energy and we are pleased that the EPA has opened the door to these coal-to-biomass conversions here in the United States."

<http://www.marketwatch.com/story/enviva-applauds-epa-on-clean-power-plan-2015-08-04>

USDA announces incentives to establish biomass crops

On Aug. 19, USDA Farm Service Agency Administrator Val Dolcini announced that enrollment has begun for farmers and forest landowners seeking financial assistance for growing new sources of biomass for energy or biobased products within designated projects areas. The funds are available from the Biomass Crop Assistance Program, which was reauthorized by the 2014 Farm Bill.

<http://www.ethanolproducer.com/articles/12557/usda-announces-incentives-to-establish-biomass-crops>

Chester plans to install wood pellet heating system in the fall

The town of Chester is looking at installing a new wood pellet heating system in late September or early October at the Municipal Center on Route 9.

Chester's 1930s-era building currently uses oil to fuel its boilers in a steam heating system, so when the town wanted to switch to wood pellets, a unique project was born. The New York State Energy Research and Development Authority is using it as a demonstration project for the rest of the state and is funding the bulk of the cost.

http://poststar.com/news/local/chester-plans-to-install-wood-pellet-heating-system-in-the/article_4e8d9da3-684f-577d-8094-7813403e3666.html

Vermonters could get up to \$5,500 by switching to wood pellet heating

Vermonters can get up to \$5,500 to help switch from fossil fuel to local wood heating. Cash incentives are available from the Clean Energy Development Fund and Efficiency Vermont. Renewable Energy Vermont and the Renewable Energy Resource Center have partnered to help promote the incentives.

<http://www.vermontbiz.com/news/august/vermonters-could-get-5500-switching-wood-pellet-heating>

Biomass - the answer to Britain's energy trilemma...

When we compare biomass against the three legs of the energy trilemma it is clear to see why it is so good. First, like coal or gas, it is possible to generate electricity reliably, round the clock, or on demand. We do this using an existing power station and distribution network.

When the UK needs power you can always depend on biomass in a way you cannot with some other sources which rely on the wind to blow or the sun to shine.

Second, because biomass requires very little new infrastructure, it is cheaper than almost every other renewable energy source that the UK has available. That is critical if we want to reduce the burden on household bills.

And third, biomass has the most limited impact on the environment, not just at the global level where it is contributing to substantial reductions in carbon emissions which cause global warming, but also on a local level where areas of Britain can remain unspoiled by new developments.

<http://www.thisismoney.co.uk/money/comment/article-3206385/Is-biomass-answer-Britain-s-energy-trilemma-Sustainable-fuel-clean-cheap-doesn-t-need-windy-day-work.html>

USDA accepting comments on Monsanto genetically engineered corn

The USDA recently opened a public comment period on a preliminary plant pest risk assessment (PPRA) and draft environmental assessment (EA) for maize designated as event MON 87403, a Monsanto corn that has been genetically engineered for increased ear biomass. Comments are due Aug. 20.

<http://www.ethanolproducer.com/articles/12509/usda-accepting-comments-on-monsanto-genetically-engineered-corn>

Energy Department Foresees algae biofuel in your future

Fleet managers casting about for clean alternatives to petroleum may have more options in the near future. The Obama administration has been supporting algae biofuel research and development through the departments of Energy, Agriculture and Defense, and it looks like those efforts are beginning to pay off.

Although algae is still barely a blip on the alternative fuel screen, last week the Department of Energy offered a laundry list of reasons why algae biofuel could — and should — be ready to compete with fossil fuels and other biofuels, too.

<http://www.triplepundit.com/2015/08/energy-dept-foresees-algae-biofuel-in-your-future/>

Energy bill includes language benefiting bioenergy, algae

On July 22, the U.S. Senate Committee on Energy & Natural Resources introduced a bipartisan energy bill, titled the “Energy Policy Modernization Act of 2015.” The committee was scheduled to hold business meetings on the bill on July 28 and July 30 to markup the legislation.

According to documents published by the committee, Section 3017 of the bill focuses on biopower. It amends section 9008 of the Farm Security and Rural Investment Act of 2002 to provide research assistance for the development of biopower and bioheat projects. It also expands the authority of the Biomass Research and Development Board to consider biopower and bioheat projects and authorizes grants to support innovation and market development of biopower and bioheat systems. The bill would require the secretaries of agriculture and energy to set up two working groups to collaborate on project implementation and to share best practices. In addition, the legislation would establish a low-interest loan program in the USDA’s Rural Development Office to support the construction of residential, commercial or institutional and industrial bioheat systems. The bill would also permit loans for bioheat and biopower residential, commercial or institutional, and industrial wood energy systems to be made under the Energy Efficiency and Conservation Loan Program under Section 2 of the Rural Electrification Act of 1936.

The bill would also benefit algae research and development. According to the Algae Biomass Organization, the legislation includes language that would prioritize research and development of carbon utilization technologies under the U.S. Department of Energy’s Fossil Energy program. The bill would add “improving the conversion, use, and storage of carbon dioxide produced from fossil fuels” to the list of DOE Fossil Energy research and development objectives.

<http://biomassmagazine.com/articles/12242/energy-bill-includes-language-benefiting-bioenergy-algae>

EPA opens comment period on cottonseed oil analysis

The U.S. EPA has published a notice inviting public comment on its preliminary analysis of the lifecycle greenhouse gas (GHG) emissions attributable to the production and transport of *Gossypium* spp. seed oil (cottonseed oil) feedstock for use as a biofuel feedstock.

<http://biomassmagazine.com/articles/12194/epa-opens-comment-period-on-cottonseed-oil-analysis>

Biomass Research and Development Committee to meet in August

The U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy has announced an open meeting of the Biomass Research and Development Committee.

According to information published in the Federal Register, the purpose of the meeting is to develop advice and guidance that promotes research and development leading to the production of biobased fuels and biobased products. The tentative agenda is expected to include an update on USDA biomass research and development activities, and update on DOE research and development activities, an update on the Biomass Research and Development Initiative, a panel on measuring environmental indicators and assessment, a panel on economic and bioeconomy market development, and a panel on biomass resource development.

<http://biomassmagazine.com/articles/12305/biomass-research-and-development-committee-to-meet-in-august>

USDA GAIN report highlights EU ethanol, biodiesel markets

A report recently filed with the USDA Foreign Agricultural Service's Global Agricultural Information Network provides an overview of the European Union's liquid biofuel industry, including information related to ethanol and biodiesel.

According to the report, the European Parliament approved a reform of the Renewable Energy Directive in April, which places a 7% cap on crop-based biofuels use in the transportation sector. The European Council is expected to confirm the parliament's vote this year. If approved, member states would be required to enact the new legislation by 2017.

<http://www.ethanolproducer.com/articles/12546/usda-gain-report-highlights-eu-ethanol-biodiesel-markets>

EIA predicts ethanol production will hold steady through 2016

The U.S. Energy Information Administration has published the August edition of its Short-Term Energy Outlook, predicting that ethanol production will remain near current levels in 2015 and 2016. A similar prediction was made in the July STEO.

According to the EIA, ethanol production averaged 935,000 barrels per day last year, and is expected to remain near current levels through next year.

<http://www.ethanolproducer.com/articles/12533/eia-predicts-ethanol-production-will-hold-steady-through-2016>

Ayariga calls for private participation in waste management

Minister for Environment, Science, Technology and Innovation, Mahama Ayariga, has advocated increased private participation in Waste Management in Ghana.

Speaking after a tour of the Accra Compost and Recycling Plant (ACARP) the Minister stressed the need for technological advancement in managing the country's waste which continues to be a burden on Government.

<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ayariga-calls-for-private-participation-in-waste-management-378719>

Business & Market

Wood pellet production at high level in Germany

Approximately 980,000 tons of wood pellets were produced in Germany in the first half of 2015, as the German Energy Wood and Pellet Association (DEPV) reported. Thus, production in the country is at a high level. However, with this output, production was slightly below the previous year's figure, with only 19,000 fewer tons produced.

http://www.ihb.de/wood/news/Germany_wood_pellets_production_43133.html

PHI Group completes land acquisition for Florida wood pellet project

<http://money.cnn.com/news/newsfeeds/articles/globenewswire/10145220.htm>

Biomass: Canada H1 wood pellet exports edge up 1% on-year

Canada exported 781,083 mt of wood pellets in the first half of 2015, nudging up 1% on the year-earlier period, as increased deliveries to the UK offset declines in shipments from Italy and South Korea, according to Statistics Canada data Monday.

The country's H1 pellet exports to the UK - Canada's largest customer for the fuel - were 587,205 mt, up 26% on the year. Exports to Italy in the six-month period declined 62% on the year to 42,799 while those to South Korea fell 47% to 33,221 mt.

Sources said weak demand in the residential heating pellet market explained the on-year fall in Italian deliveries, while the drop in Canadian shipments of industrial pellets to South Korea was attributed to stiffer competition from local Asian suppliers such as Vietnam and Malaysia.

<http://www.platts.com/latest-news/electric-power/london/biomass-canada-h1-wood-pellet-exports-edge-up-26180100>

Extra measures at Westview wood pellet terminal working

Pinnacle Renewable Energy's Westview Wood Pellet terminal has been the site of bustling activity since it's inception.

Handling over 3300 tonnes of wood pellets a day - it's a tall order. Concerns from residents over noise and dust have prompted the terminal to add extra measures.

"On our property, we worked with the Port Authority to set up dust monitoring sites throughout the community. We've installed noise dampening curtains up top to knock down the noise on our drives up top, that run our conveyers" says terminal manager Steve Robin.

<http://www.cftktv.com/News/Story.aspx?ID=2184816>

Astec Industries announces \$30mn pellet plant order

Astec Industries, Inc. has entered into an agreement with Highland Pellets, LLC to build, deliver and install the first production line of a new turnkey wood pellet production facility.

<http://www.nasdaq.com/press-release/astec-industries-announces-30-million-pellet-plant-order-20150820-00849>

Short-rotation trees hold promise for Louisiana landowners

A movement in Europe from coal to wood-fired electric generation has created a worldwide market for wood pellets, according to experts at a recent symposium.

Planting and managing short-rotation stands of fast-growing hardwood tree species can help meet demands for wood pellets and similar products made from small diameter, pulpwood-sized trees in some regions, said AgCenter forestry researcher Mike Blazier.

<http://www.thenewsstar.com/story/money/2015/08/25/short-rotation-trees-hold-promise-louisiana-landowners/32340765/>

Astec sells first wood pellet plant for \$30 million

Astec Industries, Inc. announced that it has sold its first wood pellet production facility for \$30 million. Highland Pellets LLC has agreed to pay Astec to build, deliver and install the first production line of a new turnkey wood pellet production facility made by Astec.

The contract includes the option to add additional production lines, related equipment and installation services which could bring the total order amount to \$143 million. Astec expects to deliver the first production line and related equipment no later than early 2016.

<http://www.timesfreepress.com/news/business/aroundregion/story/2015/aug/20/astec-sells-first-wood-pellet-plant-30-million/320842/>

German Pellets improves turnover in the first half of 2015

In the first half year of 2015, the German Pellets Group managed to improve market position and make investments for future growth. As the group states in a press release, the price downturn in the market was compensated, and once again turnover growth was attained. In the first six months of 2015, the group's overall result amounted to EUR 293.6 m. (previous year: EUR 263.5 m.). At the same time, German Pellets improved its operational earnings in relation to the previous-year period. EBITDA rose to EUR 26.3 m. in the reporting period (previous year: EUR 24.9 m.).

To expand the end-customer business in northern Germany, German Pellets took over the pellets business of Nord Energie GmbH & Co. KG in February of this year. Moreover, German Pellets launched its own sales subsidiary in France in the first half of this year. At the Urania site in the US, paralleling the launch of operations for the first construction phase, the works began on the second construction phase. As a result, the site's capacity will double, so as to reach 1.156 m. tonnes per annum. In the first months of this year, substantial steps were also undertaken in bringing about the planned construction of sawmilling and sorting capacities at the Woodville site in the US. The work towards getting these resources operational is proceeding. The timber quantities to be produced there were already able to be sold in the US dollar currency area on a long term basis.

Furthermore, German Pellets is at a well-advanced stage of negotiations with the German energy provider E.ON regarding the takeover of a coal-fuelled power-station in Belgium. Currently German Pellets Holding Belgium NV is being formed for this purpose. The aim is to convert the plant from coal to wood pellets.

http://www.ihb.de/wood/news/German_Pellets_turnover_43459.html

Dutch company to build \$50 mn worth wood processing complex in Arkhangelsk region

A Dutch company in collaboration with Gazprom Teploenergo will build \$50 million worth woodworking complex including 3 facilities. This was reported by the government of Russia's Arkhangelsk region.

The project was proposed by Gazprom Teploenergo and the Dutch A.Hak Renewable Energy B.V. The complex will be built in Plesetsk district of Arkahngelsk region and will comprise a lumber manufacturing complex in Severoonezhsk, a biochar plant and a LVL production facility in Plesetsk. Total joint investments are expected to come up to 3.5 billion rubles or about \$50 mn.

http://www.ihb.de/wood/news/Gazprom_biochar_pellets_boilers_43449.html

Veolia appointed Operator of Sheffield's new biopower plant

Veolia has been awarded a 15-year contract to operate the Holbrook Community Renewable Energy Centre by Equitix ESI CHP. The 6.5MWe biomass-fired combined heat and power station will be built in Holbrook, Sheffield, and is designed to provide sustainable green energy for over 10,000 homes. It will use around 55,000 tonnes of waste wood as carbon neutral fuel, which will be provided from local suppliers and has the capability to export renewable heat energy to a district heating scheme.

<http://www.ciwm-journal.co.uk/archives/14956>

Ugandan entrepreneur uses briquettes to tackle gender and development issues

The Ugandan entrepreneur Betty Ikalany uses agricultural waste such as maize and ground husks to make charcoal briquettes in Uganda. She is one of the four laureates of the African Start-up Award at the New York Forum Africa in Libreville, Gabon.

With her new business, "Appropriate Energy Saving Technologies", she makes improved cook stoves for sale to households and institutions at an affordable price. The stoves use less fuel than traditional metallic stoves, thus cooking more efficiently and saving energy. Women are not her only targets however. She wants to address gender along with development issues using clean energy and new technologies.

<http://www.france24.com/en/20150828-africa-business-libreville-gabon-start-betty-ikalany-briquettes-energy-clean>

Five-fold rise for Cornish cheesemaker thanks to biomass

A Westcountry cheese-maker has seen a five-fold increase in production since installing a new energy efficient heating system 12 months ago.

Installing a biomass boiler has had a huge impact on Cornish Gouda Company, allowing the team to produce five times more artisan cheese from its farm at Lanreath, near Looe in Cornwall.

<http://www.westernmorningnews.co.uk/fold-rise-Cornish-cheesemaker-thanks-biomass/story-27587326-detail/story.html>

Saxlund takes order for biomass handling system in the U.K.

Saxlund International, a fully-owned subsidiary of Opcon AB, the energy and environmental technology Group, has received an order from Babcock & Wilcox Vølund A/S, Denmark, for the delivery of a state-of-the-art biomass handling system to a green energy project in Margam – Port Talbot, between Swansea and Cardiff in South Wales, U.K.

<http://biomassmagazine.com/articles/12327/saxlund-takes-order-for-biomass-handling-system-in-the-u-k>

Erin Voegele's web story: There is an increase in Russian wood pellet production

<http://biomassmagazine.com/blog/article/2015/08/from-russia-with-love>

Biomass project helping tackle fuel poverty is in the running for national award

A renewable heating project that is helping to tackle fuel poverty for some of the most vulnerable households in north Devon has been shortlisted for a prestigious national award. Energy efficiency expert Anesco has worked with social housing landlord Westward Housing Group on the initiative, which it is claimed could help hundreds of thousands of households if it were to be replicated nationwide. The project is now in the running to be named Community Heating Project of the Year as part of the Heating & Renewable Awards 2015.

<http://www.24dash.com/news/housing/2015-08-04-Biomass-project-helping-tackle-fuel-poverty-is-in-the-running-for-national-award-in>

Genera Energy launches unique biomass crop planning app

Genera Energy Inc., a top bioenergy supply chain management company, and a worldwide leader in feedstock development and supply chain innovation, announced the launch of its first mobile agriculture app, Biomass. The Biomass app was developed to serve as a practical, easy-to-use mobile crop planning and learning tool for biomass farmers and landowners.

<http://www.ethanolproducer.com/articles/12504/genera-energy-launches-unique-biomass-crop-planning-app>

The UK to build the world's largest biomass plant, fed by US forests

Plans have been announced for a construction project that will result in the world's largest biomass plant in the United Kingdom. The Tees Renewable Energy Plant (REP) will be located in the Port of Teesside, Middlesbrough and it will have a capacity of 299 MW. The plant will produce enough renewable energy for its own operations while supplying power to commercial and residential utility customers in the area by burning wood pellets largely sourced from American forests.

The project's engineering and construction is expected to cost more than €600 million (\$661.11 million) and create around 1,100 jobs during the construction phase. Abengoa, an environmental technology firm based in Spain, along with Toshiba, will lead the project for the client, MGT Teesside, a subsidiary of the British utility MGT Power.

Similar to other biomass power plants in the UK, the Tees REP will burn wood pellets and chips sourced from forest lands in the United States and Europe. The renewable energy generated is anticipated to be equivalent to the power consumed by 600,000 households in the UK. MGT's website says the plant will help meet the UK's nationwide renewable energy goal of 15 percent of all energy consumed by 2020 by accounting for around 1 percent of the target. Further, the company projects that the plant will save approximately 1.2 million tonnes of CO2 each year. MGT reports the project is expected to break ground as soon as funding is secured, hopefully by early 2016, and the plant will be operational by 2019 – just in time to help offset coal and gas usage and contribute to the UK's 2020 energy goals.

<http://inhabitat.com/worlds-largest-biomass-plant-to-be-built-in-uk-by-2019/>

Plans lodged for £370m energy plant that aims to make Norwich the greenest city in Europe

Ambitious plans to build a £370m energy plant on the edge of Norwich city centre have reached a major milestone. A formal planning application has been lodged for the Generation Park scheme which aims to make Norwich the greenest city in Europe and has been more than a decade in the making.

The University of East Anglia is one of the prime investors in the proposed energy park at the 30-acre Utilities site – a patch of wasteland between Thorpe Hamlet and Whitlingham. Proposals, which feature a straw pellet-burning energy plant, were explained to the public in a series of consultation events in recent months before a formal application was submitted to Norwich City Council, the Broads Authority and South Norfolk Council this month. This has now been validated, with a three-month consultation period before the scheme goes before planning councillors.

http://www.edp24.co.uk/news/environment/plans_lodged_for_370m_energy_plant_that_aims_to_make_norwich_the_greenest_city_in_europe_1_4189510

REG to acquire Imperium's assets including 100 MMgy plant

Renewable Energy Group Inc. and Imperium Renewables Inc. have signed an asset purchase agreement where REG would acquire substantially all the assets of Imperium, including a 100-million gallon nameplate capacity biodiesel refinery and deep water port terminal at the Port of Grays Harbor, Washington.

<http://www.biodieselmagazine.com/articles/467684/reg-to-acquire-imperiums-assets-including-100-mmgy-plant>

The Pyromaniac, Class of 2015: The Top 10 Pyrolysis projects in renewable fuels

It's been around for a generation or so — fast pyrolysis, that is. Though in the original low-tech incarnation — known as “cooking fire” — pyrolysis has been around since the dawn of man. But the numbers have never been so close to commercial, even in these days of low fossil fuel energy prices.

<http://www.biofuelsdigest.com/bdigest/2015/08/03/the-pyromaniac-class-of-2015-the-top-10-pyrolysis-projects-in-renewable-fuels/>

CaterSave Europe, the equipment supplier has launched Food Waste Processor

The processor has been built to help companies that produce food waste to substantially cut their waste collection costs. It can process from 50 kg to 1000 kg food waste.

<http://www.globalmeatnews.com/Environment/Food-waste-processor-launched>

Waste heat from biogas system to heat C&D facility in Wisconsin

<http://biomassmagazine.com/articles/12301/waste-heat-from-biogas-system-to-heat-cd-facility-in-wisconsin>

Alliance BioEnergy Plus announces plant development agreement

Alliance BioEnergy Plus Inc. announced that it entered into a non-exclusive development agreement with Renewable Resources Development of America LLC for the construction and operation of up to 56 cellulose conversion plants both domestically and abroad utilizing the company's licensed, patented CTS technology.

<http://www.ethanolproducer.com/articles/12517/alliance-bioenergy-plus-announces-plant-development-agreement>

Ethanol producers tackle blend wall with direct sales

A small number of ethanol producers sell E85 and other ethanol blends directly to consumers with on-site blender pumps or, in a few cases, own retail gas stations.

<http://www.ethanolproducer.com/articles/12522/ethanol-producers-tackle-blend-wall-with-direct-sales>

Poet releases first-ever economic impact study

Poet LLC, one of the world's largest ethanol producers, released its first-ever economic impact study, revealing the significant impact Poet made to national economic growth and job creation in 2014, including:

- Generating a total of \$13.5 billion in sales for U.S. businesses;
- Adding \$5.4 billion in national gross domestic product;
- Supporting an estimated 39,978 full time jobs; and
- Contributing \$3.1 billion in income for American families.

<http://www.ethanolproducer.com/articles/12541/poet-releases-first-ever-economic-impact-study>

Pearson Fuels to supply E85 at 5 Sacramento-area gas stations

Pearson Fuels is announcing its new supply agreements with five additional gas stations in and around the Sacramento, California, metropolitan area.

<http://www.ethanolproducer.com/articles/12532/pearson-fuels-to-supply-e85-at-5-sacramento-area-gas-stations>

R4C alternative to Gloucestershire incinerator launched

Community R4C (Resource Recovery, Recycling and Refining Centre), an alternative waste treatment plant designed to undermine Urbaser Bafour Beatty's (UBB) Javelin Park incinerator in Gloucestershire, has been officially launched.

The group has presented R4C as a more 'safe, cost-effective and sustainable facility' compared to the Javelin Park incinerator, claiming that over the course of one year it would save £10 million for local tax-payers, reduce carbon emissions by 114,000 tonnes, and provide nearly 90,000 more tonnes of both renewable biomass fuel and 'high-grade' recyclates.

The R4C plans to use advanced mechanical biological heat treatment (MBHT) – which uses magnets, air currents, water and infra-red light – to sort 'more than 90 per cent' of processed waste from municipal black bin bags into recyclates or waste that can be converted into bio-based fuel pellets.

<http://resource.co/article/r4c-alternative-gloucestershire-incinerator-launched-10384>

Master of logistics

By securing advantageous points of distribution in the Southeast and fine-tuning its transport and storage tactics, wood pellet giant Enviva is well-positioned to satisfy growing overseas demand.

<http://www.biomassmagazine.com/articles/12314/master-of-logistics>

'Midterm report' shows S.C. forestry near growth goal

The forest products industry makes a nearly \$19 billion annual contribution to the state's economy, according to the S.C. Forestry Commission.

http://thetandd.com/business/midterm-report-shows-s-c-forestry-near-growth-goal/article_acd65669-7283-520e-a100-19f8ca38deac.html

REG completes acquisition of Imperium biodiesel plant, terminal

<http://www.biodieselmagazine.com/articles/493304/reg-completes-acquisition-of-imperium-biodiesel-plant-terminal>

Enviva makes progress on facilities, eyes 2016 start

Enviva's two storage domes at the Port of Wilmington are up, but the company still has work to do before it can begin processing wood pellets from North and South Carolina forests and shipping them abroad through the Port of Wilmington.

http://www.wilmingtonbiz.com/more_news/2015/08/20/enviva_makes_progress_on_facilities_eyes_2016_start/13676

Brooklyn Startup tackles global health with a cleaner stove

A new company, BioLite, aims to reduce indoor pollution for the more than 3 billion people in the developing world who cook over a dirty open fire.

<http://insideclimatenews.org/news/25082015/brooklyn-startup-tackles-global-health-cleaner-cooking-stove-emissions-biolite>

BDI – BioEnergy commissions next phase of Argent Energy upgrade

In Austria, as part of the major British project, BDI – BioEnergy International AG has been commissioned with implementation of the next phase of construction.

Within seven months of project starting on the BDI "High-FFA Esterification Unit", Argent Energy Limited (Motherwell, Scotland, a subsidiary of John Swire and Sons Ltd.) commissioned the second phase. With its order for the supply of a Multi-Feedstock plant, the customer is focusing again on the process-based expertise of the Austrian plant engineering specialist and thus continues its successful partnership.

<http://www.biofuelsdigest.com/bdigest/2015/08/26/bdi-bioenergy-commissions-next-phase-of-argent-energy-upgrade/>

A Boston firm to build nearly two dozen biofuel factories in Ukraine to help reduce the war-torn country's reliance on Russian natural gas

https://www.bostonherald.com/business/business_markets/2015/08/hub_firm_aims_to_wean_ukraine_off_russian_gas

First AD biogas plant opens in Kenya: Tropical Power's 2.4 MW plant cost US\$7.5m

<http://www.tcetoday.com/latest%20news/2015/august/first-ad-biogas-plant-opens-in-kenya.aspx#.Vdr1ZPmqkko>

Pacific Ag raises \$7 million from ACAP

Pacific Ag, the nation's largest crop residue supply company, has announced \$7 million investment from Advantage Capital Agribusiness Partners LP. The growth capital will enable Pacific Ag to accelerate the expansion of its operations across the country through acquisitions, technology, equipment, sales and marketing to meet the increasing demand for agricultural biomass in the bio-refining, animal protein, composting and other markets.

<http://biomassmagazine.com/articles/12276/pacific-ag-raises-7-million-from-acap>

5 Minnesota energy projects selected for NextGen funding

The Minnesota Department of Agriculture has selected five renewable energy projects to receive NextGen Energy grants. The grants are part of the Agricultural Growth, Research and Innovation program to help fund creative and emerging agricultural projects. These grant awards were specifically targeted at projects using woody biomass to replace propane as a heat source in regions of the state without access to natural gas.

The purpose of the NextGen Grant Program is to expand and strengthen Minnesota's commitment to the development of locally-owned and fueled renewable energy projects. Minnesota also aims to be a leading state in reducing GHG emissions. These projects cover various sectors of the state as well as different technologies for biomass heating.

<http://biomassmagazine.com/articles/12192/5-minnesota-energy-projects-selected-for-nextgen-funding>

Protec Fuel, Patriot Capital announce financing program

Fuel marketers seeking a competitive edge by offering alternative fuel options can now quickly and affordably add ethanol-enhanced fuels to their dispensing lineup.

Through an expansion of an existing partnership, Patriot Capital Corp., a leader in innovative equipment financing solutions, is offering a zero-percent financing program to dealers who enlist Protec Fuel to create or expand their capabilities in offering E15, E85 and higher ethanol fuel blends.

<http://www.ethanolproducer.com/articles/12538/protec-fuel-patriot-capital-announce-financing-program>

IRFA: Grants available for E15 infrastructure upgrades in Iowa

<http://www.ethanolproducer.com/articles/12551/irfa-grants-available-for-e15-infrastructure-upgrades-in-iowa>

10 MW WTE project draws Japanese interest

Japanese investors have expressed interest in investing waste-to-energy plant located in either Rayong or Samut Sakhon province, says Industry Minister Chakramon Phasukvanich.

The biomass project is due to start next year, he said, adding that it would cost 1.8 billion baht and was expected to help eliminate 500 tonnes of waste a day.

<http://www.bangkokpost.com/business/news/662200/biomass-power-project-draws-japanese-interest>

The bus bringing biomass... to the masses

Heaters are used to burn wood pellets and the like, offering consumers an environmentally friendly alternative to conventional forms of heating and generation. But although its green credentials are well known there is one issue that is sometimes overlooked: often, the factory-produced granules have to travel long distances before they reach biomass boilers -- increasing environmental footprints.

In the Alsace region of France, one company, H-énergie, has come up with a solution: a mobile granulator that visits farmers and helps reduce the need for travel. "For the environment, the fact that the granulator is mobile is advantageous, because it reduces the need for transport – raw materials can be processed on location rather than at a factory," H-énergie co-inventor Xavier Remond told CNBC's Sustainable Energy.

This comes at a time when the popularity of biomass is growing. Consumption of biomass energy increased by over 60 percent between 2002 and 2013, according to the U.S. Energy Information Administration, with biomass in 2013 accounting for around half of all renewable energy consumed and 5 percent of energy in the U.S.

<http://www.cnbc.com/2015/08/27/the-bus-bringing-biomass-to-the-masses.html>

EPA spends \$1.5mn on a 'Stove Intervention' for Africa: 'Stove use behaviors,' 'actual cooking events' to be analysed

The Environmental Protection Agency (EPA) is spending \$1.5 million to bring a "stove intervention" to Africa. The project, conducted by the University of Colorado, is attempting to change how people living in the Sahel of Africa cook and light their homes to be more energy efficient.

The EPA grant argues the project is necessary because the population in this region, which lies between the Sahara Desert and the vast Sudanian Savanna, is "projected to continue to grow at alarming rates," meaning more carbon emissions from when Africans cook.

<http://freebeacon.com/issues/epa-spends-1-5-million-on-a-stove-intervention-for-africa/>

Argonne scientists study benefits of bioenergy crop integration

Scientists at Argonne National Laboratory, funded by the U.S. Department of Energy's Bioenergy Technologies Office, are studying multifunctional landscapes and how they can benefit farmers, the environment, and the bioenergy industry nationwide. Their study, "Multifunctional landscapes: Site characterization and field-scale design to incorporate biomass production into an agricultural system," is set to be published in September 2015 in the journal, Biomass and Bioenergy.

<http://www.ethanolproducer.com/articles/12506/argonne-scientists-study-benefits-of-bioenergy-crop-integration>

Grains of rice hold big promise for GHG reductions, bioenergy

Rice serves as the staple food for more than half of the world's population, but it's also the one of

the largest manmade sources of atmospheric methane, a potent greenhouse gas. Now, with the addition of a single gene, rice can be cultivated to emit virtually no methane from its paddies during growth. It also packs much more of the plant's desired properties, such as starch for a richer food source and biomass for energy production, according to a study in Nature.

<http://www.ethanolproducer.com/articles/12499/grains-of-rice-hold-big-promise-for-ghg-reductions-bioenergy>

SCRA completes landfill gas-to-hydrogen project at BMW facility

SCRA has successfully completed the landfill gas-to-hydrogen project at the BMW Manufacturing Co.'s Spartanburg, South Carolina, facility.

The US Department of Energy-supported project explored the economic and technical feasibility of converting landfill gas into hydrogen of sufficient purity to power fuel cell vehicles, including material handling equipment. BMW's facility currently operates a fleet of more than 350 pieces of material handling equipment across the 5.6 million square foot production facility, all powered by hydrogen fuel cells.

The landfill gas-to-hydrogen project team was led by SCRA, with technical support from the Gas Technology Institute and Ameresco Inc. DOE provided both technical support and half of the funding for the \$1.3 million project. Additional funding for the project was provided by BMW, SCRA, the Blue Moon Foundation, Urban Renewable Hydrogen and the Columbia Fuel Cell Collaborative.

<http://biomassmagazine.com/articles/12281/scra-completes-landfill-gas-to-hydrogen-project-at-bmw-facility>

Identifying pathways in algae that produce oil without killing them

Some algae like *Chlamydomonas reinhardtii* (or "Chlamy," as it's known to its large research community) produce energy-dense oils or lipids when stressed, and these lipids can then be converted into fuels. However, researchers walk a fine line in not killing the goose that lays the golden eggs, in this case, stressing the algae just enough to produce lipids, but not enough to kill them.

<http://phys.org/news/2015-08-pathways-algae-oil.html>

PCS Biofuels converts Giant King Grass into replacement for coal

VIASPACE Inc. announced that PCS Biofuels Inc. of Vancouver, Canada has converted Giant King Grass into a high-energy, carbon neutral, drop-in replacement for coal using its patented Polymer Carbon Solid (PCS) thermal catalytic process. The resulting PCS Giant King Grass biofuel has the same energy density as metallurgical coal, and is environmentally friendly as it burns cleanly without generating sulfur, mercury or other emissions found in coal. PCS solid biofuel is hydrophobic and can be stored outdoors like coal and pulverized in the same machines as coal.

The PCS solid biofuel process is a hydrothermal process that uses hot water under pressure as the solvent, and a patented catalyst.

The report from PCS Biofuel concludes, "The preliminary results indicate that Giant King Grass is an excellent feedstock for the production of PCS Biofuel. The energy density of the biomass is increased significantly to the range typical of a good thermal coal (~24MJ/Kg). The ash content is similar to that of a good coal. Since the ash has a high melting point, above 950oC we expect no problems when the PCS biofuel from GKG is burnt alongside of coal. The residual ash from combustion would be an excellent addition to the cement making process as a pozzolan agent."

<http://www.pennenergy.com/articles/pennenergy/2015/08/pcs-biofuels-converts->

[giant-king-grass-into-replacement-for-coal.html](#)

Researchers gain better understanding of algae lipid production

A team led by scientists from the U.S. DoE Joint Genome Institute has analyzed the genes activated during algal lipid production, particularly the molecular machinery that orchestrates these gene activities inside the cell when it produces lipids.

<http://www.biodieselmagazine.com/articles/473740/researchers-gain-better-understanding-of-algae-lipid-production>

Ethylene production via sunlight opens door to future

Here's the future of ethylene production as Dr. Jianping Yu sees it. "We envision some farms in the field that cover many acres. We will have cyanobacteria harvesting sunlight and CO₂ and then produce ethylene or ethylene derivatives," said Yu, a research scientist in the Photobiology Group at the Energy Department's National Renewable Energy Laboratory. "That's pretty far from where we are now, but that's the goal. If things work out, 10 years from now we should see some farms making petrochemical replacements."

<http://phys.org/news/2015-08-ethylene-production-sunlight-door-future.html>

Minnesota poised to play a role in next-generation heating oil

<http://www.biodieselmagazine.com/articles/493287/minnesota-poised-to-play-a-role-in-next-generation-heating-oil>

Researchers modify oil seed to lower viscosity for use as biodiesel fuel

http://www.greencarreports.com/news/1099609_researchers-modify-oilseed-to-lower-viscosity-for-use-as-biodiesel-fuel

Winery waste could produce low cost biofuel

The solid grape waste left over from wine-making could be used to produce low cost biofuel, scientists have found. The researchers showed that up to 400 litres of bioethanol could be produced by fermentation of a tonne of grape marc - the leftover skins, stalks and seeds from wine-making.

Global wine production leaves an estimated 13 million tonnes of grape marc waste each year. It is estimated that several hundred thousand tonnes are generated annually in Australia and it is generally disposed of at a cost to the winery.

http://www.business-standard.com/article/pti-stories/winery-waste-could-produce-low-cost-biofuel-115082100690_1.html

ICM completes two 1,000-hour performance runs of Gen 2.0 process

ICM Inc. has successfully completed first and second 1,000-hour performance runs (1,100 continuous hours each run) of its patent-pending Generation 2.0 Co-located Cellulose Ethanol process. The runs, performed at ICM's pilot plant in St. Joseph, Missouri, prove out the colocated technology design for the conversion of cellulosic biomass feedstocks, including energy crops such as switchgrass and energy sorghum, agricultural crop residues, and forestry residues, to cellulosic ethanol and coproducts.

<http://ethanolproducer.com/articles/12552/icm-completes-two-1-000-hour-performance-runs-of-gen-2-0-process>

Using fungi to harvest microalgae for biofuels

Biofuels produced using microalgae could play an important role in the transition from a fossil fuel-based to a sustainable economy. While researchers have optimized the transformation of microalgae into biogas, harvesting and drying the algae continue to consume too much energy, accounting for 20-30% of the cost of biofuel production.

Now, scientists from EPFL and the Universities of the Western Cape and Stellenbosch in South Africa have come across a filamentous fungus that could cut the cost of biomass harvesting. They presented their findings in the journal *Bioresource Technology* in June.

<http://phys.org/news/2015-08-fungi-harvest-microalgae-biofuels.html>

DuPont bets on billion-dollar ethanol industry

Scientists at the DuPont Experimental Station have developed a new fuel that could soon replace ethanol at gas pumps and bring in billions of dollars.

And now, with a patent dispute settled, DuPont and its partner BP can focus on convincing ethanol plants to convert to producing its product, bio-butanol, and take a big share of the more-than-\$20 billion U.S. ethanol market. DuPont and BP have spent 11 years and hundreds of millions of dollars on the project, in which they tinkered with the genes of yeast and created a new oil-producing organism.

The result is a company called Butamax Advanced Biofuels, which owns the bio-butanol-producing yeast patents. The new fuel is filled with 25 percent more energy-per-gallon than ethanol, but unlike its biofuel cousin does not have the potential to harm a engine's fuel system in a damp environment.

<http://www.delawareonline.com/story/news/local/2015/08/28/dupont-bets-billion-dollar-ethanol-industry/71341328/>

Desert plants could help power the planet without upsetting food supplies: Eco-entrepreneur Mike Mason

<https://www.newscientist.com/article/mg22730342-700-my-cacti-could-generate-electricity-and-help-curb-climate-change/>