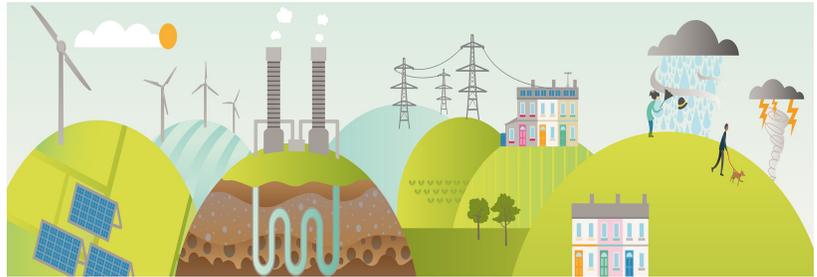


May 2015



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India

Business & Market

Synthesis Energy Systems and Simon India Limited extend joint marketing agreement

Synthesis Energy Systems, Inc. and Simon India Limited (SIL), announced the extension of their exclusive marketing and engineering agreement, originally signed in March 2013, to market SES' advanced technology for coal and biomass gasification projects in India. SIL, an engineering, procurement and construction (EPC) company, is a wholly owned subsidiary of Zuari Global Limited.

<http://globenewswire.com/news-release/2015/03/30/720131/10126671/en/Synthesis-Energy-Systems-and-Simon-India-Limited-Extend-Joint-Marketing-Agreement.html>

Indian companies may go green to meet power needs by 2020

Indian companies could soon figure among the likes of global firms such as Nestle, Mars, Philips and Ikea that plan to switch to green energy sources as part of the RE100 initiative, under which 100 large firms will rely exclusively on solar, wind, biomass or small hydro plants for their power requirements by 2020.

RE100, convened by international non-profit agency The Climate Group and sustainability firm CDP, has 15 members at present, including Elion Resources Group, one of China's top private enterprises, which has committed to rely entirely on renewable energy by 2030.

http://articles.economictimes.indiatimes.com/2015-04-22/news/61417577_1_renewable-energy-indian-companies-demand-side

Kadamba may switch from diesel to CNG, biodiesel

In order to cut costs and increase profitability, and also to reduce pollution, Goa's state-run Kadamba transport corporation (KTC) is studying the possibility of converting its buses from diesel fuel to CNG (compressed natural gas) on the lines of the Delhi transport corporation (DTC). The KTCL is also studying the possibility of using bio-diesel to reduce its operating costs.

www.timesofindia.indiatimes.com/city/goa/Kadamba-may-switch-from-diesel-to-CNG-biodiesel/articleshow/47063483.cms

Policy Initiatives

To clean up air in cities, Government plans biofuel, electric buses

The Government is set to come out with policies to introduce clean fuels such as biodiesel, bioethanol and electricity for public transport vehicles and school buses in big cities to tackle air

pollution, road transport minister Nitin Gadkari said in the Lok Sabha.

Gadkari said use of such alternative, non-polluting fuels can help the country save Rs 6 lakh crore annually by way of reduced crude oil imports. Introducing hybrid buses was also part of the plan, the minister added.

<http://timesofindia.indiatimes.com/india/To-clean-up-air-in-cities-govt-plans-biofuel-electric-buses/articleshow/45567794.cms>

India's high air pollution levels blamed on 'changing lifestyles': PM

A higher level of industrialization has led to greater economic development in India, and with the new found wealth has come an unwanted side-effect. Air pollution is so bad that in 2014, India was ranked 174 out of 178 countries for air quality.

The major contributors to India's air pollution

- Cook stoves, called chullahs are still used by over 100 million households in India, on average, two to three times a day. Dried cow dung, agricultural waste, and firewood are still the traditional fuels of choice. In 2009 the Times of India wrote that WHO reported that "300,000 to 400,000 people die of indoor air pollution and carbon monoxide poisoning in India because of biomass burning and use of chullahs."
- Indian farmers also engage in crop residue burning of their fields during the autumn and winter months. The resultant smoke casts a brown haze over large parts of the country, and is said to cause the "Asian brown cloud" that sometimes delays the start of the monsoon season.

www.digitaljournal.com/news/environment/india-s-high-air-pollution-levels-blamed-on-changing-lifestyles/article/430088

Neighbouring states add to Delhi's air pollution woes

<http://indiatoday.intoday.in/story/delhi-pollution-air-punjab-haryana-up-border-states/1/426517.html>

Push for cleaner stoves gets boost with new ways to measure pollution

A team of economists, scientists and health experts working with The Gold Standard Foundation has developed a uniform way to calculate how much black carbon is released from cooking stoves that use different technologies or fuels. It's a first and necessary step, they say, in accessing the tens of billions of dollars it will cost to provide cleaner cookers worldwide for some 2.8 billion people still using firewood, kerosene or sundried patties made of hand-packed cow dung.

www.indiawest.com/news/india/push-for-cleaner-stoves-gets-boost-with-new-ways-to/article_c7700846-e1a7-11e4-9e27-a7b879460826.html

Finance & Investment

IFC, PTC Financial to collaborate on financing RE projects

IFC, the World Bank Group's private funding arm, and PTC India Financial Services have agreed to partner for providing infrastructure financing for RE projects in India. PTC Financial Services will become the first institution in India to sign IFC's master cooperation agreement.

Soon, hydrogen from corn may fuel cars

Scientists have dramatically increased the efficiency of producing clean hydrogen fuel from plant waste in a breakthrough that could one day lead to petrol stations being replaced by a network of roadside "bioreactors" for refuelling cars.

A study funded by Shell Oil has shown that it is possible to convert 100% of the sugar stored in corn stover - the stalks, cobs and husks leftover in a harvested maize field - into hydrogen gas with no overall increase in carbon dioxide emissions to the atmosphere.

<http://timesofindia.indiatimes.com/home/science/Soon-hydrogen-from-corn-may-fuel-cars/articleshow/46844673.cms>

Jatropha not viable biofuel, scientists eye alternatives

The search for alternate fuels to replace petrol and diesel had generated much hope in Jatropha seeds. But with Jatropha being proven to be commercially unviable, MS University's scientists are now looking for alternate sources. Though biodiesel extracted from the seeds of jatropha is of high-quality, the plant is not farmer-friendly. Three scientists are studying a variety of plants to identify sources of alternate transport fuels which can be made commercially viable.

"Jatropha requires earmarking fertile areas for its plantations. The plant has no commercial use apart from the seed-oil. Also, the cost of litre of Jatropha fuel is close to petrol," said Dr Shailesh Shah from department of chemistry. The study says that sorghum, a type of grass, has a potential to be a rich source of biodiesel. Soyabean and waste cooking oil along with sugarcane bagasse are also potential sources.

www.timesofindia.indiatimes.com/city/vadodara/Jatropha-not-viable-biofuel-scientists-eye-alternatives/articleshow/46732267.cms

Business & Market

Denmark January wood pellet imports up 18% on month to record 272,627 mt

www.platts.com/latest-news/coal/london/biomass-denmark-jan-wood-pellet-imports-up-18-21264535

Halifax Clean-Tech firm to build \$13mn biomass pellet plant in Chester

Sustane Technologies Inc. has partnered with the Municipality of the District of Chester on the project, which will turn landfill waste into biomass pellets and recyclable materials. The demonstration plant, which would be at Chester's Kaizer Meadow landfill, is slated to be operational in mid-2016.

www.thechronicleherald.ca/business/1279285-tech-firm-to-build-13m-biomass-pellet-plant-in-chester

Mohegans announce Pasta Vita partnership, third wood-pellet plant

www.theday.com/article/20150413/BIZ02/150419758

Drax Biomass appoints CEO

SubmitDrax Biomass, Atlanta, has named Peter Madden its CEO for United States operations. Mr. Madden brings close to 30 years of experience in the forestry industry to Drax Biomass and will guide the subsidiary's overall strategy and oversee day-to-day operations in the United States.

www.rewmag.com/drax-biomass-madden-ceo-pellets.aspx

Logansport hopes 3rd time is the charm for power plant developer

www.wlfi.com/2015/04/07/logansport-hopes-3rd-time-is-the-charm-for-power-plant-developer/

Biomass heating specialist launches new Dual fuelling option biomass boiler

The biomass boiler system allows users to either use logs or wood pellets and its intelligent fuel switching detects when the wood gassifier is in burnout and switches to pellet operation, either automatically or at a desired time.

The new boiler is available as either a comfort or energy optimised variant. The PowerBoost function can meet short-term higher heat demands up to 56kW. With the energy optimised version, pellet operation is up to 25% more efficient than conventional combination boilers. Available in four models from 33 kW – 56 kW output, the heater has a filling volume of 145 litres for 50cm split logs and 164 litres of wood pellets, the feed for which can be either manual or fully automatic.

www.greenbuildingpress.co.uk/article.php?article_id=2065

Biomass boiler a 'Shore' thing at Seaweed plant

Modern and efficient biomass heating systems are extending their reach to the furthest shores of the UK, with the installation of a 999kW Binder wood chip boiler, at a unique Outer Hebridean production plant.

Hitched to a drying mill at the state of the art Uist Asco production facility on North Uist Island, the fully automatic boiler from Wood Energy uses timber from Asco's own renewable supply to process Knotted Wrack (*Ascophyllum nodosum*) seaweed, freshly harvested from the shores of the island, into feedstuffs and organic fertilizer for the agricultural sector.

It is estimated that around six million tonnes of wood is wasted by being sent to landfill in the UK each year and that the forestry industry wastes enough biomass annually to heat 1,500,000 homes. But the highly efficient and robust Binder unit - which has a low ash residue and the capability to burn fuel with moisture content of up to 55% (the same as a freshly felled tree) - will allow the company to make full use of even the very low grade brash and branch wood material recovered from its sustainable forestry operations.

www.greenbuildingpress.co.uk/article.php?article_id=2063

CMT's first ever Japan biomass market in Tokyo assesses country's ambitious biomass power roadmap

www.altenergymag.com/news/2015/04/07/cmt%E2%80%99s-first-ever-japan-biomass-market-in-tokyo-assesses-country%E2%80%99s-ambitious-biomass-power-roadmap/19497/

RZ Pellets plans to build two biomass plants in Klagenfurt, Austria

RZ Pellets (Riegler & Zechmeister Group) is planning to build two 35 MWth biomass plants in Klagenfurt, Austria, that will provide district heating for around 25,000 households. The plants in the north of Klagenfurt will generate 5 MWe, while the plant in the east will generate 10 MWe. The total cost of both projects is Euro 94 million, AcuComm reported.

www.lesprom.com/en/news/RZ_Pellets_plans_to_build_two_biomass_plants_in_Klagenfurt_Austria_67057/

Nippon to construct power plant in Japan that cofires biomass

Nippon Paper Industries Co. Ltd. and Mitsubishi Corp. have agreed to establish Nippon Paper Ishinomaki Energy Center Ltd., an electric power generation business company that will construct and operate a thermal electric power generation facility using mixed fuel of coal and biomass in Ishinomaki City, Miyagi Prefecture.

The new company will set up the electric power generation facility on the Hibarino site owned by Nippon Paper Industries' Ishinomaki Mill. The operation and maintenance of the electric power generation facility will be contracted to Nippon Paper Industries, and electricity will be sold to a power producer and supplier. The business is scheduled to commence in March 2018.

<http://biomassmagazine.com/articles/11867/nippon-to-construct-power-plant-in-japan-that-cofires-biomass>

Drax Biomass' first vessel sails from Port of Baton Rouge

On April 7, the first vessel sailed away from Drax Biomass' Baton Rouge port facilities to the Port of Tyne located on the U.K.'s East Coast. The MV TBC Princess was loaded with pellets from Drax Biomass' southern pellet mills for power generation.

Drax Biomass spent about 15 months building the port facilities to handle and ship pellets from the company's two 450,000 metric-ton-per-year plants; Amite BioEnergy in Gloster, Mississippi, and Morehouse BioEnergy in Morehouse Parish, Louisiana, as well as pellets from suppliers other than Drax. These facilities have amounted to an overall investment of a \$350 million for the company, and are expected to put 200 people to work by 2016.

www.biomassmagazine.com/articles/11835/drax-biomass-first-vessel-sails-from-port-of-baton-rouge

Oregon Senate votes to define biomass as 'carbon-neutral'

The Oregon State Senate has approved a bill to declare biomass "carbon neutral." Senate Bill (SB) 752 was sponsored by Sen. Tim Knopp and Sen. Chris Edwards, who is also chair of the Senate Environment and National Resources Committee, and passed the Oregon Senate in a unanimous vote.

SB 752 mirrors a rule previously enacted by the Department of Environmental Quality (DEQ), and "exempts carbon dioxide emissions from combustion or decomposition of biomass from regulation under certain air pollution laws unless necessary to implement federal Clean Air Act," according to the bill.

www.fierceenergy.com/story/oregon-senate-votes-define-biomass-carbon-neutral/2015-04-22

Marks & Spencer: Cooking its way to a cleaner future

When you think of clean cookstoves, Marks and Spencer (M&S) is not the first name that comes to mind. And yet the UK-based retailer is the first in its sector to commit to increase the focus on clean cooking with the Global Alliance for Clean Cookstoves, building off its positive experience with a UNICEF-developed improved cookstove project in Bangladesh.

This commitment to clean cookstoves is the latest offshoot of the company's sustainability plan, known as Plan A. The company launched Plan A in January 2007, establishing 100 commitments to achieve in five years, including a carbon neutrality goal. The plan has since been updated to Plan A 2020, with the company setting a goal of becoming the world's most sustainable retailer.

www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=10877

Colder winters fueling wood stove market

www.limaohio.com/news/home_top-news/152738107/Colder-winters-fueling-wood-stove-market

QCCP hits 1 million gallon cellulosic milestone

Syngenta recently announced that Quad County Corn Processors has produced its 1 millionth gallon of cellulosic ethanol through the use of Cellerate process technology at its Galva, Iowa, ethanol production facility. This milestone puts QCCP on track to produce 2 million gallons of cellulosic ethanol per year.

www.ethanolproducer.com/articles/12121/qccp-hits-1-million-gallon-cellulosic-milestone

The American Coalition for Ethanol launches a new fuel retailer-

focused campaign

The campaign called "Flex Forward in 2015" is designed to reach marketers who have not yet responded to other industry efforts.

[**www.ethanolproducer.com/articles/12098/flexing-forward-with-e15**](http://www.ethanolproducer.com/articles/12098/flexing-forward-with-e15)

Abengoa opens up cellulosic ethanol plant in Hugoton, Kansas

[**www.ethanolproducer.com/articles/12089/report-highlights-corn-ethanols-role-in-cellulosic-development**](http://www.ethanolproducer.com/articles/12089/report-highlights-corn-ethanols-role-in-cellulosic-development)

Nebraska ethanol producer provides infrastructure grant

[**http://www.ethanolproducer.com/articles/12107/nebraska-ethanol-producer-provides-infrastructure-grant**](http://www.ethanolproducer.com/articles/12107/nebraska-ethanol-producer-provides-infrastructure-grant)

EPA: Nearly 8 million cellulosic RINs were generated in April

The U.S. EPA has released Renewable Identification Number (RIN) generation data for April, reporting that more than 1.44 billion RINs were generated during the month, including nearly 7.82 cellulosic RINs.

[**http://www.ethanolproducer.com/**](http://www.ethanolproducer.com/)

Ener-Core provides update on pending sale for ethanol plant

Ener-Core Inc., the world's only provider of Power Oxidation technology and equipment that generates clean power from low-quality and waste gases from a wide variety of industries, released an update on its pending sale to Dresser-Rand of two Ener-Core Power Oxidizers that will be coupled with the Dresser-Rand KG2-3GEF 2 MW gas turbine generators for Pacific Ethanol's Stockton, California, plant.

Pacific Ethanol announced its agreement with Dresser-Rand in January 2015, to install a cogeneration system including two of Ener-Core's Power Oxidizers to convert waste gas from ethanol production into electricity and steam. This agreement followed Ener-Core's November 2014 entrance into a global licensing agreement with Dresser-Rand to develop and market the Dresser-Rand KG2-3GEF gas turbine coupled with the Ener-Core oxidizer.

[**www.ethanolproducer.com/articles/12088/ener-core-provides-update-on-pending-sale-for-ethanol-plant**](http://www.ethanolproducer.com/articles/12088/ener-core-provides-update-on-pending-sale-for-ethanol-plant)

Cascades invests in biorefinery project at Cabano plant

Cascades Inc., a leader in the recovery of recyclable materials and manufacturing green packaging products and tissue paper, has made investment in a new technology at its Norampac - Cabano facility. This innovative new process - a Canadian first is used to extract hemicellulose, a cellulosic sugar with high value-added potential, from wood chips.

This project worth a total of \$26 million represents a major advance in biorefinery development in Canada. Backed by a \$10 million investment from Natural Resources Canada's Investments in Forest Industry Transformation program and an additional \$4.4 million from the Québec Ministère des Forêts, de la Faune et des Parcs, the Cabano plant will replace its current process - the production of sodium carbonate-based chemical pulp—with this new, more environmentally friendly and economical one that was developed in conjunction with a U.S. partner.

This new process - the extraction of hemicellulose from deciduous woodchips - will replace the use of chemical products, which would otherwise have to be purchased, shipped and disposed of

responsibly. Another benefit is the plant's reduced energy consumption, which will boost Cabano's competitiveness. The facility's reduced environmental footprint will position Cabano to offer products that are even more environmentally friendly.

www.ethanolproducer.com/articles/12124/cascades-invests-in-biorefinery-project-at-cabano-plant

Algenol to participate in business development mission to China

Algenol proves, once again, to be a global leader in the commercialization of advanced biofuels from CO₂, as the company joins the U.S. Secretary of Energy Ernest Moniz and the U.S. Secretary of Commerce Penny Pritzker on a business development mission to China. The honor comes on the heels of being recognized with the Global Leadership Award in Biofuels from Platts.

Algenol's goal for this mission is to offer Chinese government officials and private business solutions for reducing carbon emissions by recycling man-made carbon dioxide (CO₂) generated from carbon-intensive industries. Algenol's technology turns carbon pollution into a business and economic opportunity by utilizing its patented algae platform to consume CO₂ from industrial emissions and produce the world's four most important fuels—ethanol, gasoline, diesel and jet fuel.

www.ethanolproducer.com/articles/12106/algenol-to-participate-in-business-development-mission-to-china

Pemex awards 10-year contracts for domestic ethanol in Mexico

Fuel ethanol got a boost in Mexico recently when the state-owned oil company, Pemex, awarded four 10-year purchase contracts for anhydrous ethanol. Pemex announced contracts for 123 million liters (32 million gallons) of domestically produced anhydrous ethanol to be blended at a 5.8 percent ratio in Pemex's trademarked Magna gasoline.

Pemex said it will invest 880 million pesos (\$58 million) in infrastructure upgrades to handle and blend ethanol, along with refinery adjustments at Ciudad Madero and Minatitlan. The company added ethanol producers are expected to invest at least \$132 million to build and adapt their biorefineries. The contracts will support regional producers of sugarcane in Veracruz and sorghum in Tamaulipas, according to Pemex, and be valued between \$524 million and \$750 million.

www.ethanolproducer.com/articles/12110/pemex-awards-10-year-contracts-for-domestic-ethanol-in-mexico

NexSteppe takes biomass sorghum to commercial-scale in Brazil

Nextsteppe-5Next-gen feedstock developer records 1000% year-on-year growth for its Palo Alto Biomass Sorghum hybrids in Brazil. In California, NexSteppe announced that it sold more than 10,000 hectares (25,000 acres) of its Palo Alto biomass sorghums in Brazil this past growing season, compared to just over 1,000 hectares (2,500 acres) in the previous year.

<http://www.biofuelsdigest.com/bdigest/2015/04/15/nexsteppe-takes-biomass-sorghum-to-commercial-scale-in-brazil/>

Malaysia to be biggest biogas exporter

Malaysia is expected to be Asia's biggest biogas exporter by 2020 and Asia's biggest biogas hub by 2030, said Science, Technology and Innovation Minister, Datuk Dr Ewon Ebin. He said Malaysia had the potential to utilise biogas resources to be at the epicentre of global bioindustrial ecosystem.

"Currently, we have about five million hectares of land under oil palm, so by 2020, we will be able

to increase revenue to about RM20 billion. The aim is to show the viability in upgrading biogas from palm oil mill effluent (POME) to bio-methane, which can be used to fuel cars or other industrial applications," he said at the fourth Biogas Asia Pacific Forum 2015. With the adoption of biotechnology in the biogas industry, production would significantly increase and the industry was expected to grow to RM8.3 billion by 2022 from RM1.46 billion in 2015, he added.

www.therakyatpost.com/business/2015/04/28/malaysia-to-be-biggest-biogas27-exporter/

Gas Malaysia in biogas tie-up with Sime Darby Offshore

Gas Malaysia Bhd has partnered with Sime Darby Offshore Engineering Sdn Bhd (SDOE) to distribute biogas compressed natural gas (BioCNG) extracted from palm oil mill effluent (Pome). Pome is the voluminous liquid waste that comes from the sterilisation and clarification processes in milling oil palm.

www.thestar.com.my/Business/Business-News/2015/04/29/Gas-Malaysia-in-biogas-tieup-with-Sime-Darby-Offshore/?style=biz

Food waste to be co-digested into biogas in Korean underground wastewater plant

A new underground wastewater treatment plant serving 700,000 people in the municipality of Anyang, South Korea will use thermal hydrolysis technology (THP) to co-digest organic waste. South Korean engineering, procurement and construction (EPC) contractor Posco E&C awarded Norwegian firm, Cambi, a contract to supply its B12 THP process plant for the Anyang Sewage Treatment and co-digestion project.

The CambiTHP system will co-digest about 27,000 dry tons of organic waste per year, of which 65% is sewage sludge and the remaining 35% food waste. Biogas produced from the co-digestion plant will be turned into electricity and as heat for the CambiTHP TM and digestion processes.

www.waste-management-world.com/articles/2015/04/food-waste-to-be-co-digested-into-biogas-in-korean-underground-wastewater-treatment-plant.html

AgEnergy USA, Perdue Farms partner on clean Bay Biogas Project

Anaerobic digester developer AgEnergy USA and Perdue Farms, a major chicken processing company based in Salisbury, Md., had signed a letter of intent for a Clean Bay Biogas Project that will use poultry waste to develop biogas while reducing nitrogen and phosphorous in the state of Maryland.

The project is a large complete mix, anaerobic digester system to be located on the eastern shore of Maryland. The project will include more than 20MG of bio-reactor capacity and front-end and back nutrient management and water treatment systems. Perdue Farms will supply 100 percent of the feedstock for the facility, including poultry waste and other organic materials. It is projected that the facility will process up to 200,000 tons of poultry waste per year.

<http://waste360.com/anaerobic-digestion/agenergy-usa-perdue-farms-partner-clean-bay-biogas-project>

Blue Sphere joins York Capital to build US biogas plant

Blue Sphere Corp., an Israeli developer of waste-to-energy projects, has agreed to form a joint venture with York Capital Management to build and operate a US biogas facility.

Blue Sphere will own 22.75% of the 3.2MW plant in Johnston, Rhode Island, the Even Yehuda,

Israel-based company. This is Blue Sphere's second joint-venture agreement this year to build a U.S. facility. The other is for a plant in North Carolina.

Blue Sphere is receiving \$1,481,900 in cash and will get two additional \$562,500 payments in line with operational milestones expected in the fourth quarter. Entropy Investment Management is helping to manage the project.

[**www.bloomberg.com/news/articles/2015-04-20/blue-sphere-joins-york-capital-to-build-u-s-biogas-plant**](http://www.bloomberg.com/news/articles/2015-04-20/blue-sphere-joins-york-capital-to-build-u-s-biogas-plant)

Biogas CHP unit for small scale AD claims £5.7m roi over 20 years

A sub 200kWth Combined Heat and Power (CHP) unit has been launched by ENER-G for small scale anaerobic digestion, which the company claims maximises financial returns on both the highest rate Renewable Heat Incentive (RHI) and Feed in Tariffs (FIT).

Designed for smaller farms and dairies, the E200 biogas CHP unit provides a thermal output of 195kWth (qualifying for a RHI of 7.5p per kWth), together with an electrical output of 205kWe - at a total efficiency rating of 77.1%.

[**www.waste-management-world.com/articles/2015/04/biogas-chp-unit-for-small-scale-anaerobic-digestion-claims-5-7m-roi-over-20-years.html**](http://www.waste-management-world.com/articles/2015/04/biogas-chp-unit-for-small-scale-anaerobic-digestion-claims-5-7m-roi-over-20-years.html)

VERBIO commissions straw-to-biogas facility in Germany

VERBIO Vereinigte BioEnergie AG has successfully commissioned another major production site for the production of biomethane at Schwedt/Oder. The new plant uses a new internally generated technology to manufacture biomethane from 100 percent straw.

The development of this innovative technology at the Schwedt/Oder location is supported by the European Union's NER 300 subsidy project, providing funding of up to €22.3 million (\$24.48 million) over the period from 2014 to 2019. The new plant is based on mono straw fermentation technology. The plant will be extended to reach 16.5 MW capacity by the year 2019, generating 140 gigawatt hours of biomethane annually for sale as biofuel from approximately 40,000 tons of straw.

[**www.biomassmagazine.com/articles/11866/verbio-commissions-straw-to-biogas-facility-in-germany**](http://www.biomassmagazine.com/articles/11866/verbio-commissions-straw-to-biogas-facility-in-germany)

Denmark increases amount of biogas in natural gas grid

The amount of green biogas in the Danish natural gas grid will rise more than 500% by the end of 2016. Before the end of 2015, the Danish natural gas distribution companies HMN Naturgas, DONG Gas Distribution and NGF Nature Energy will send around 76 million cubic metres of upgraded biogas into the natural gas grid, doubling the current production capacity of 32 million cubic metres.

In 2016, the volume of biogas in the grid will be increased to around 179 million cubic metres which is five times more than today. This will supply heat to around 100,000 households and reduce Denmark's annual carbon footprint with about 400,000 tonnes CO₂, according to HMN Naturgas. The biogas is produced of, among other things, manure, surplus straw, sewage sludge, food waste and household waste.

[**www.copcap.com/Newslist/2015/Denmark-increases-amount-of-biogas-in-natural-gas-grid**](http://www.copcap.com/Newslist/2015/Denmark-increases-amount-of-biogas-in-natural-gas-grid)

Kumasi Abattoir to generate biogas with animal waste

The Kumasi Abattoir has been selected as a viable facility where waste generated is set to be used to generate biogas. This is a nationwide pilot project by the United Nations Industrial Development Organization (UNIDO), which seeks to produce energy from bio waste.

The 1.28 million Euro biogas plant would be the first in the UNIDO Biogas Project to boost RE and to help Ghana generate gas and electricity from agro waste. The Korean funded project is also aimed at supporting the greening industries programme in Ghana.

www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=355735

UK households supportive of renewable energy, biomass

The U.K. Department of Energy and Climate Change has released an updated edition of its public attitudes tracking survey, reporting that 78% of U.K. households said they support the use of renewable energy to provide electricity, fuel and heat. According to the DECC, this result is consistent with survey results from the past three years.

<http://biomassmagazine.com/articles/11883/u-k-households-supportive-of-renewable-energy-biomass>

The world is finally producing renewable energy at an industrial scale

Renewables are finally becoming a globally significant source of power, according to a United Nations Environment Programme report released in March by Frankfurt School UNEP Centre and Bloomberg New Energy Finance.

Driven by rapid expansion in developing countries, new installations of carbon-free renewable power plants in 2014 surpassed 100,000MW of capacity for the first time, according to the Global Trends in Renewable Energy Investment report. It appears that renewable energy is now entering the market at a scale that is relevant in energy industry terms – and at a price that is competitive with fossil fuels. The numbers are compelling. Renewables such as wind, solar and biomass generated an estimated 9.1% of the world's electricity in 2014, up from 8.5% in 2013, according to the report.

www.theguardian.com/vital-signs/2015/apr/20/renewable-energy-global-trends-solar-power

Boost for new sustainable farming projects

The new Zealand Government is to grant NZ\$7.8mn in new funding over four years through the Sustainable Farming Fund (SFF), to 29 new farming projects.

www.thecropsite.com/news/17496/boost-for-new-sustainable-farming-projects/

Policy Development

Sustainable biomass partnership accepts SCS Global Services as Applicant Certification Body

SCS Global Services (SCS), a leader in third-party environmental and sustainability certification, announced that it has been accepted as an applicant Certification Body for the Sustainable Biomass Partnership (SBP). As a result, SCS is now ready to conduct audits of companies in the biomass sector, while continuing to contribute to the expansion and success of the SBP program.

www.csrwire.com/press_releases/37830-Sustainable-Biomass-Partnership-Accepts-SCS-Global-Services-as-Applicant-Certification-Body

[Drop forest biomass burning as 'renewable': MFC](#)

Markets For Change is calling on federal MPs not to target forest biomass as 'renewable energy'.

'It is increasingly recognised in Europe that renewable energy policy encouraging the burning of forest biomass for electricity has been a mistaken policy that is actually contributing to carbon emissions and adversely affecting natural forests around the world,' said Markets For Change CEO Peg Putt from Brussels. 'We urge the government and all MPs in Canberra not to target forests for energy production, but instead to go with genuine, clean renewable energy', he added.

www.echo.net.au/2015/04/drop-forest-biomass-burning-as-renewable-mfc/

Renewable Heat NY projects support growth of biomass industry

The New York State Energy Research and Development Authority and Vincent's Heating and Fuel Service have announced the kickoff of 15 commercial and residential high-efficiency, low-emission wood pellet-fired heating projects and the availability of bulk pellet delivery in the Mohawk Valley and North Country.

As New York shifts the way it does business with the energy industry to a more market-based approach, these projects are spurring the growth of the biomass industry in the Mohawk Valley and North Country, providing examples of the ways new technology works in various settings. With locally produced wood pellets and state-of-the-art pellet and cordwood boilers made in New York, the projects are stimulating investment in the industry and in New York State.

These projects help build a sustainable renewable heating sector, a skilled installer base and sustainably harvested wood fuels from New York forests. They are part of New York's comprehensive Reforming the Energy Vision, a substantial restructuring of the State's energy regulatory environment and clean energy programs. Through the proposed Clean Energy Fund, one of the four REV "pillars," New York State will reduce greenhouse gases, attract private capital to invest in clean energy, and employ innovative approaches that will enable new, integrated, self-sustaining energy markets and expand economic development.

<http://biomassmagazine.com/articles/11784/renewable-heat-ny-projects-support-growth-of-biomass-industry>

U.S. public organizations intend to include in the standards of eco building the requirements about the use of biomass

Such organizations as the American Society of Heating, Refrigerating and Air-Conditioning Engineers, the U.S. Green Building Council and the Illuminating Engineering Society undertook the initiative to make this appeal.

The reason for that is due to the fact that the standards of high efficiency eco building projects comprise the minimum requirements to reduce energy expenditure, resources consumption and many other factors having an impact upon the environment. Hence, the recommendations with regard to the use of renewable energy such as solar, wind and geothermal must be included in the standards.

<http://pellets-wood.com/u-s-public-organizations-intend-to-include-in-the-013142.html>

Wood-fuel cook-stoves manufactured locally to meet International standard

Ghana is taking steps to ensure that wood-fuel cook-stoves manufactured locally meet internationally accepted standards in terms of environmental-friendliness.

Mr. Kwabena Otu-Danquah, Head of Renewable Energy of the Energy Commission, said a regulatory tool for testing of the stoves was being developed with technical support from the United Nations Development Programme (UNDP). Mr. Otu-Danquah was speaking at the inauguration of a US\$150, 000 Cook-stove Testing and Expertise Laboratory at the Technology Consultancy Centre (TCC), Kwame Nkrumah University of Science and Technology (KNUST), in Kumasi.

He stated that a minimum performance and emissions standards and labels would be introduced to improve performance, explaining that, "When this becomes operational all wood-fuel cook-stove manufacturers will be expected to test their stoves and get them labeled before they are sold on the Ghanaian market".

www.spyghana.com/wood-fuel-cook-stoves-manufactured-locally-to-meet-international-standard/

EIA updates ethanol production forecasts in short-term outlook

The U.S. Energy Information Administration has released the April edition of its Short-Term Energy Outlook, revising its ethanol production forecasts for this year and next year.

<http://ethanolproducer.com/articles/12111/eia-updates-ethanol-production-forecasts-in-short-term-outlook>

U.K. DECC releases 2014 liquid biofuel data

The U.K. Department of Energy and Climate Change has released provisional annual energy statistics for 2014, reporting that ethanol accounted for 4.6 percent of gasoline last year. Biodiesel accounted for 3.4 percent of total diesel.

<http://ethanolproducer.com/articles/12122/u-k-decc-releases-2014-liquid-biofuel-data>

Indonesia to impose palm oil export levy to subsidize biofuel

www.bloomberg.com/news/articles/2015-04-04/indonesia-to-impose-palm-oil-export-levy-to-subsidize-biofuel

RE to account for 27% of EU¹s energy consumption: Minesto CEO

Anders Jansson, CEO of Nordic marine energy technology company Minesto, finds the EU action on climate very encouraging and the most visionary major policy document ever produced in the renewable energy field, hopefully to be followed by other nations and regions outside the EU.

The 2030 framework for climate and energy policies was proposed by the Commission in 2014 and is built on the experiences and lessons learnt from the 2020 climate and energy framework. On March 19, 2015 the leaders of EU also met to set out the first steps of an Energy Union, strengthening the commitment for affordable, secure and sustainable energy within the EU.

A central objective for the framework is to reduce EU domestic greenhouse gas emissions by at least 40 per cent below the 1990 level by 2030. In order to accomplish that, the framework points out that renewable energy is to play a key role in this transition. Therefore the Commission has proposed an objective of increasing the share of renewable energy to at least 27 per cent of the EU's energy consumption by 2030.

www.scandoil.com/moxie-bm2/news/renewable-energy-to-account-for-27-of-eus-energy-c.shtml

Finance & Investment

UK Green Investment Bank backs new biomass projects

The energy-from-waste project and adjacent materials recycling facility is estimated to create more than 100 jobs during construction, and 50 full-time once complete. M+W Group has been appointed the EPC contractor for the project.

U.K. Green Investment Bank has made several announcements recently about investments made for upcoming, renewable energy projects, including the Levenseat Renewable Energy Ltd. 12.3 MW energy-from-waste (EfW) plant and adjacent materials recycling facility (MRF) at Forth by Lanark, Scotland.

- GIB's £28.25 million (\$42.26 million) investment was made through the Foresight Group-managed fund, U.K. Waste and Resource and Energy Investments, in which GIB is a cornerstone investor. This is the eighth investment made by the fund, which has now fully deployed £78 million having mobilized over £350 million in capital.
- Another funding announcement GIB made recently is in the amount of £4 million for a new, on-farm anaerobic digestion (AD) plant in Old Quarrington, in northeast England. This is the first investment made by the £50 million Recycling and Waste LP (RAW) fund, backed by GIB.
- A third GIB investment in a £190 million renewable power plant at the Port of Tilbury, Essex, was made jointly with the Irish electricity utility Electricity Supply Board in the amount of £70 million. The plant will use waste wood to produce over 300 GWh of electricity annually—enough to power over 70,000 households. Stobart Biomass will provide 270,000 metric tons per year of wood waste for the project, once it reaches its expected commission date in early 2017.

www.biomassmagazine.com/articles/11758/uk-green-investment-bank-backs-new-biomass-projects

Unique Oakland biodiesel project receives \$3.4mn grant

www.biodieselmagazine.com/articles/349407/unique-oakland-biodiesel-project-receives-3-4-million-grant

Research & Development

Study shows Nitrogen use efficiency trait increases biomass of sugarcane

Arcadia Biosciences, Inc., an agricultural technology company that develops and commercializes plant traits and products that improve farm economics and benefit the environment and human health, announced the results of a new study conducted by the South African Sugarcane Research Institute (SASRI). The study, published in the scientific journal *Plant Cell Reports*, showed significant improvements in plant growth parameters and biomass in sugarcane lines incorporating Arcadia's Nitrogen Use Efficiency (NUE) trait.

www.businesswireindia.com/news/news-details/study-shows-nitrogen-use-efficiency-

[trait-increases-biomass-sugarcane/43405](#)