

March 2015



HIGHLIGHTS

Business & Market

IIM-A's CIIE incubatee sets up India's...

Policy Initiatives

Controversy over clean cookstove unnecessary...

Finance & Investment

Yes Bank issues India's first green bond...

Research & Development

Valicor working with Purina, announces patent...

Climate & Environment Change

What makes Delhi's air the worst in the world...



India

Business & Market

Orient Green Power synchronised 20MW biomass cogeneration plant in Kolhapur with the Maharashtra state grid

www.renewables.seenews.com/news/orient-green-completes-20-mw-biomass-plant-in-india-463060

Kochi institute has filed for a US patent of biofuel from coconut oil

The SCMS Institute of Bioscience & Biotechnology Research & Development, Kochi, has successfully developed the process for standardising the production of coconut methyl ester (CME) from coconut oil, which can power diesel automobile engines.

The functional property of CME was proved in a diesel vehicle by test-running it directly as biofuel without making modifications in the engine and in the fuel lines. The research comprised optimisation of the production of CME from coconut oil, study of its physicochemical properties and testing its efficacy as a fuel in a diesel engine.

www.deccanchronicle.com/150216/nation-current-affairs/article/kochi-institute-has-filed-us-patent-biofuel-coconut-oil

Studies underway for biofuel production: TN Minister

The Tamil Nadu Agricultural University is involved in studies to produce biodiesel, Agriculture Minister Agri S S Krishnamoorthy told the state Assembly.

Replying to a query of AIADMK legislator Karthik Thondaiman, he said the TNAU was involved in studies to produce biodiesel by using inedible oils including those extracted from jatropha.

www.business-standard.com/article/pti-stories/studies-underway-for-biofuel-production-tn-minister-115022000797_1.html

IIM-A's CIIE incubatee sets up India's largest biomass cook-stove factory in Gujarat

A product design and distribution start-up, Greenway was set up by graduates from IIM-A and FMS Delhi, as a result of their travels to rural areas for undertaking energy projects.

With an aim to tap rural India through quality-of-life-enhancing home-appliances, Greenway, which received its seed funding from IIM-A's incubation centre CIIE, has already sold over 250,000 cook stoves. With a capacity to manufacture 800,000 units per annum, the start-up's new facility aims to replace usage of traditional mud stoves (chulhas) that are known for grave negative health and environmental impacts and achieve greater scale.

www.business-standard.com/article/current-affairs/iim-a-s-ciie-incubatee-sets-up-india-s-largest-biomass-cook-stove-factory-in-gujarat-115022601357_1.html

293 firms commit to generate 266 GW renewable energy in 5 yrs: under the government's ambitious RE-Invest programme unveiled by Prime minister

http://articles.economictimes.indiatimes.com/2015-02-15/news/59166681_1_energy-global-investors-meet-renewable-energy-welspun-energy

Biotech could take India ahead

www.newindianexpress.com/education/edex/Biotech-Could-Take-India-Ahead/2015/02/23/article2678039.ece

Policy Initiatives

Raw sugar export subsidy may be tied to mills' ethanol supplies

The food ministry has suggested that only those sugar factories that supply ethanol to oil marketing companies (OMCs) be eligible for availing of subsidy for raw sugar exports, sources said.

The latest recommendation, clubbed with an earlier proposal on the continuation of the raw sugar export subsidy scheme for the current marketing year through September, will soon be placed before the Cabinet Committee On Economic Affairs (CCEA) for approval.

The recommendation is aimed at nudging both private mills and co-operatives, which are the main producers of ethanol, to supply more to OMCs so that the target of blending the bio-fuel with petrol at a 5:95 ratio is met.

www.financialexpress.com/article/markets/commodities/raw-sugar-export-subsidy-may-be-tied-to-mills-ethanol-supplies/41414/

AP moots 50% hike in green energy generation

In a bid to boost generation of eco-friendly (NCE) power in Andhra Pradesh, the Naidu government has mooted ramping up the installed capacity of non-conventional energy generation sources to 1635MW during fiscal 2015-16 from 1085MW in the current fiscal, a jump of 550MW. The proposals have been submitted by the AP-based power utilities to the AP State Electricity Regulation Commission (APEREC).

www.timesofindia.indiatimes.com/city/visakhapatnam/AP-moots-50-hike-in-green-energy-generation/articleshow/46225245.cms

About 1 million deaths occur annually in India due to household air pollution caused by fumes from cooking, heating and lighting activities

A great dent was to have been made to these dangers and deaths with 55 million new, clean-burning LPG gas connections to have been made available to 75% of the population between 2009 and 2015, under the Rajiv Gandhi Gramin LPG Vitaran Yojana (Rajiv Gandhi LPG Rural Distribution Scheme).

The idea was to set up low-cost distribution agencies across rural India, so that fewer Indian households rely on solid-fuel, soot-emitting cookstoves, such as the one Renuka uses on Bangalore's edges.

It appears that idea has been only partially successful, with no more than 7% of the rural population using LPG, as of February 1, 2015, according to IndiaSpend calculations, based on data procured from the government. The Global Alliance for Clean Cookstoves, a development advisory, put that figure at 12% in this 2013 study, using 2010 data.

www.business-standard.com/article/current-affairs/rural-india-s-lpg-failure-kills-people-changes-weather-11502200228_1.html

Empowering rural India via the renewable route

To enhance the status of civic amenities in the rural areas has been one of the ambitious goals of the development process. Apart from raising the standards of living in rural areas, this process is also aimed at preventing migration to urban areas, as this process also stretches the limits of the infrastructural facilities in cities that are already bursting at the seams.

Having self-contained villages is an old Gandhian idea, propounded at length by the father of the nation in his concept of gram swaraj or village republics. But it is the advent of solar power technology that has provided the economic feasibility aspect to this route of empowering the rural folk. Though his ideas were formulated in the middle of the 20th century, these have become viable only in the 21st century. Now, the possibility of using renewable sources of energy like solar power, wind and biomass/gas-based power generation can lend an entirely new dimension to the Gandhian concept of village-based rural development and people's empowerment, with the added advantage of harnessing science and technology for humanitarian purposes.

<http://businesstoday.intoday.in/story/empowering-rural-india-via-the-renewable-route/1/215531.html>

Finance & Investment

State Bank of India pledges \$12bn for renewables

India's biggest bank will lend 750bn rupees (\$12bn) to back development of 15GW of renewables over the next five years, as the country's government said it wants clean sources to account for 15% of the country's energy mix within a decade.

www.rechargenews.com/wind/1391705/state-bank-of-india-pledges-usd-12bn-for-renewables

Yes Bank issues India's first green bond

Yes Bank is issuing India's first green bond as part of a programme to finance 5GW worth of renewable energy projects by 2019.

India's fourth largest private bank hopes to raise at least 500 crore rupees (US\$80 million) for solar, wind, biomass and small hydro power projects. Depending on demand, that could rise to US\$250mn.

www.rtcc.org/2015/02/19/yes-bank-issues-indias-first-green-bond/

Research & Development

City engineer invents gasifier

City engineer Ashwinikumar Shejwal, an alumnus of IIT Powai, along with his fellow alumni Pradeepkumar Podal and Devendra Pareek, has built a unique gasifier that converts agro waste into combustible gas which is suitable for 16 different kinds of products and is cheaper than LPG.

The gasifier converts coconut shells, wood, twigs and other solid biomass from agro waste into

combustible gases. The basic concept is to prepare producer gas. This is like domestic gas and can be a cheap alternative where large scale gas is needed.

www.timesofindia.indiatimes.com/city/nashik/City-engineer-invents-gasifier/articleshow/46103583.cms?

Climate & Environment Change

Getting rid of soot: Reducing black carbon in the Himalayan region will have multiple benefits and save lives

<http://nepalitimes.com/article/nation/reducing-black-carbon-in-the-himalayas,2031>

What makes Delhi's air the worst in the world?

Emissions in Delhi have been progressively rising since 2010 as has the contribution of the transportation sector to the city's air pollution, according to a study by the Indian Institute of Tropical Meteorology (IITM). The main air quality issue for Delhi lies in particulate pollutants namely PM10 (with a size of 10 micron), PM2.5 (2.5 micron) and black carbon.

The rise in the number of vehicles has led to emissions from the transport sector growing by more than 30% between 2010 and 2014, accompanied by a marginal increase of around 5% due to rise in traffic density in terms of dust as vehicles go on unpaved roads. Unpaved roads and construction work result in a spike in PM10 emissions.

www.livemint.com/Politics/n6YqpmICcMeDfvVV8qgMEJ/What-makes-Delhis-air-the-worst-in-the-world.html

Business & Market

Wood Pellet exports from North America reach record high in 3Q/14

Wood pellet exports from North America reached a new record high in the 3Q/14, according to the North American Wood Fiber Review

Asia has become a new market for wood pellet exporters in Western Canada with shipments having increased for six consecutive quarters, while Canadian exports to Europe have fallen substantially during 2014, reports the North American Wood Fiber Review.

Total Canadian overseas pellet exports rose slightly in the 3Q/14 from the previous quarter, but they were still 15% below their high of over half a million tons in the last quarter of 2013. Shipments from both Western and Eastern Canada to Europe fell in the first three quarters of 2014; in the 3Q/14, shipments were at their lowest level since 2011. Export volumes for the Asian market have followed a more positive trend, with increased shipments for six consecutive quarters.

British Columbia's pellet shipments overseas will likely remain stable during most of 2015 until the first of five announced pellet mills starts commercial operation late in 2015 or early 2016. There are currently plans to add over 800,000 tons of pellet capacity in the province during 2015/16 with South Korea being the target market.

In the US, pellet exports continue to be dominated by bulk shipments out of the US South to Europe, with only minor container volumes primarily shipped from the US West Coast to Asia. The US overseas pellet exports rose to over one million tons in the 3Q/14, with the growth in shipments having continued without pause since late in 2011.

www.forestindustry.com/feature-article/100/wood-pellet-exports-north-america-reach-record-high-3q14

Stores running out of wood pellets, some rationing, as low temps continue

A frigid winter, increased demand for wood pellets and customers who underestimated how much they would need contributed to a strain on manufacturers and suppliers, according to officials at the Maine Pellet Fuels Association.

Mills across the state are working nonstop to produce pellets and get them to distributors, but some stores are running out or rationing bags to prevent customers from hoarding them, according to Bill Bell, executive director of the nonprofit corporation that promotes the industry and supports pellet manufacturers and suppliers.

He said Thursday that while the state has enough capacity to meet the demand, producers are struggling to make the pellets as fast as retailers want them.

www.bangordailynews.com/2015/02/14/business/wood-pellet-industry-strained-by-cold-temps-ordering-issues/?ref=latest

New biomass plant will supply 60-70% of power at P&G's Bounty,

Charmin manufacturing facility

Procter & Gamble and Constellation — a leading retail supplier of power, natural gas and energy products and services — announced Thursday the development of an up to 50MW biomass plant that will help run one of P&G's largest U.S. facilities. The plant will significantly increase P&G's use of renewable energy, helping move the company closer to its 2020 goal of obtaining 30% of its total energy from renewable sources.

Constellation will build, own and operate the \$200mn cogeneration plant, which will supply steam to P&G's Albany, Ga., paper-manufacturing facility, as well as generate electricity for the local utility, Georgia Power.

www.sustainablebrands.com/news_and_views/cleantech/sustainable_brands/new_biomass_plant_will_supply_60-70_power_bounty_charmin

Marubeni to build 37MW biopower plant in Western Japan

<http://www.bloomberg.com/news/articles/2015-02-26/marubeni-to-build-37mw-biomass-power-plant-in-western-japan>

ARENA announces support for Perth biomass plant

The Australian Renewable Energy Agency (ARENA) announced \$5.2mn funding for Renergi to design and construct an innovative pilot scale biofuel production facility in Perth. ARENA said a 100kg per hour biomass conversion (pyrolysis) unit will be designed and constructed along with a complementary 20 litre per hour biorefinery unit.

"Renergi's approach would allow green bio-crude to be produced by conversion units at the source of feedstocks and refined into high quality transport biofuels at a large central refinery," ARENA chief executive Ivor Frischknecht said.

www.theaustralian.com.au/business/latest/arena-announces-support-for-perth-biomass-plant/story-e6frg90f-1227236933821

Uruguay to contract up to 60 MW of biomass

<http://renewables.seenews.com/news/to-the-point-uruguay-to-contract-up-to-60-mw-of-biomass-465504>

Prof: Tanzania must not abandon/marginalise biomass energy

<http://www.ippmedia.com/frontend/index.php?l=77850>

Cleangreen Energy to build 12MW biopower plant

A 12MW biopower plant with a dedicated plantation will rise in Bataan after Filipino-owned Cleangreen Energy Corp. (CEC) received its operating contract from the Department of Energy (DOE).

The power plant, targeted for completion in October 2017, is expected to commence construction this year, with a plan to increase the capacity to 24 MW for the second phase of the project, said CEC president and CEO Francisco "Frankie" Dayrit.

www.eco-business.com/news/cleangreen-energy-build-12-mw-biomass-power-plant/

Buriram Sugar ups biomass energy output More renewables, organic fertiliser eyed

<http://www.bangkokpost.com/business/news/471686/buriram-sugar-ups-biomass-energy-output>

Fire suppressant provider targets biomass industry

GelTech Solutions Inc., the creator of the patent-pending fire suppressant compound called FireIce, has begun working in the agriculture industry with hay growers and almond hullers in California, over the past six months, to suppress combustible substrate fires. This effort extends as the company initiates outreach to some biomass producers who have the similar problem of spontaneous combustion starting fires. The company is targeting the biomass industry to provide an alternative way for producers to suppress and protect plants and inventory against fires.

www.ethanolproducer.com/articles/11876/fire-suppressant-provider-targets-biomass-industry

Why a 19-year-old us winning the clean energy game in Kenya

Tom Osborn has a humble manner about him, which is surprising since, at the age of 19, he has already been recognised as one of world's top young entrepreneurs.

He is the founder of GreenChar in Kenya, a clean energy start-up that produces charcoal briquettes for cooking purposes that are both healthier to use and last longer. His coals are produced from recycled agricultural waste such as sugarcane, which studies show emit 90 percent less smoke, and have 60 percent more energy than the normal charcoal used for cooking.

GreenChar is less than two years old, but has already caused a buzz. Osborn has recently been named as one of Forbes' global '30 under 30' social entrepreneurs, and last year was selected as a 2014 Anzisha Fellow, winning \$10,000 from Donors' Circle at the Anzisha Prize Gala Awards. He was also chosen as a global Echoing Green Fellow for 2014, which comes with two years of funding totalling \$80,000. He is the youngest recipient to receive the fellowship in the organisation's 27-year-history.

www.ventures-africa.com/2015/02/thinking-like-a-ceo-why-a-19-year-old-is-winning-the-clean-energy-game-in-kenya/

Uncertainty surrounds Plymouth waste wood energy plant

The future operation of a 40,000 tonnes-per-year capacity waste wood to energy plant in Roborough, Plymouth is unclear more than two years after it was originally set to open. The £16mn plant, by 'Special Purpose Vehicle' O-Gen Plymtrek Ltd, has received regional aid and is being developed by Carbonarius Limited, a partnership set up between the Una Group and O-Gen UK to develop waste gasification facilities. The Plymouth plant is its first project and is in partnership with MITIE Group which was to have operated it.

The plant had been due to become operational from October 2012 (see letsrecycle.com story). However, while the consortium has been in discussion with businesses over the supply of waste wood feedstock, the plant is not running.

www.letsrecycle.com/news/latest-news/uncertainty-surrounds-plymouth-waste-wood-energy-plant/

Peel Energy has postponed construction of its £70mn Barton biomass plant in order to improve the 'sustainability' of the project

The £70mn plant in Davyhulme, Greater Manchester, had already been issued with a permit by the Environment Agency with operations originally expected to start in 2016.

The proposed facility would have capacity to process 200,000 tonnes of waste wood per year, with around 70% recovered from construction and demolition sources, as well as some municipal material from household waste and recycling centres (HWRCs). According to Peel Energy, the renewable energy subsidiary of property and holdings firm Peel Group, the plant would also generate around 20MW of power for local homes.

www.letsrecycle.com/news/latest-news/peel-postpones-70m-barton-biomass-plant/

Japan's NSSMC expands biomass use

Japanese steelmaker Nippon Steel and Sumitomo Metal (NSSMC) is expanding biomass usage for in-house power generation in a bid to cut emissions and promote the regional wood industry. The country's renewable energy feed-in-tariff (Fit) has also prompted increased biomass throughputs. NSSMC has started full operations at a 330MW on-site unit co-fired by wood chips and coal at its Oita steelworks in southern Oita prefecture. The company aims to use 12,000 t/yr of domestically sourced wood chips.

And NSSMC plans to boost wood-chip consumption to 48,000 t/yr from just 7,000 t/yr by June, through the upgrade of a 149MW unit, co-fired with coal, at its Kamaishi works in northern Iwate prefecture. Japanese firms are increasingly focused on the biomass sector, which has seen an investment surge since its inclusion in the Fit scheme in 2012. The country's biomass consumption in January-November last year rose by 6.7pc to 2mn t compared with the same period of 2013, according to the latest data from the ministry of economy, trade and industry.

www.argusmedia.com/News/Article?id=995330

Unido, Smeda commence biomass energy project

The United Nations Industrial Development Organization (UNIDO) in collaboration with Small and Medium Enterprises Development Authority (SMEDA) has commenced implementation on a biomass energy project which is aimed at promoting market based adoption of Biomass Gasification Technology (BGT) for power generation and thermal applications.

www.nation.com.pk/business/19-Feb-2015/unido-smeda-commence-biomass-energy-project

Biomass plants gaining steam, but do they result in less carbon?

www.forbes.com/sites/kensilverstein/2015/02/24/biomass-plants-gaining-steam-but-do-they-result-in-less-carbon/

Report provides overview of European biobased economy

A recent report published by the USDA Foreign Agricultural Service's Global Information Network provides an overview of the EU biobased economy and estimated biomass requirements for the production of biofuels, bioplastics, biochemicals and biopharmaceuticals.

According to the GAIN report, the EU currently uses approximately 32 million metric tons of biomass to produce liquid biofuels. That volume is expected to increase to 48 million metric tons by 2020. The EU also has significant demand for solid biofuels. The region is currently the world's largest market for wood pellets, with approximately 17.5 million metric tons of consumed in 2013. Demand for pellets is expected to increase to 20 million metric tons this year, with consumption projected to grow to as much 50 to 80 million metric tons by 2020.

According to the report, the EU currently produces approximately 320,000 metric tons of biobased polymers, primarily from starch blends. That volume is expected to increase to 1.2 million metric tons by 2020, with the biggest share for starch blends, polyethylene terephthalate (PET), and polylactic acid (PLA). The report also provides a description of the Horizon 2020 program, which is a program through which the European Commission funds biorefinery research and commercialization. The program has a budget of €80 billion (\$90.69 billion) for the period 2014-2020. In addition, the GAIN report discusses potential for transatlantic cooperation in developing a bioeconomy, noting full potential can only be realized with the exchange of resources.

www.ethanolproducer.com/articles/11966/report-provides-overview-of-european-biobased-economy

Oil price fall hits UK biofuel plant

One of the UK's biggest biofuel plants, the Ensus factory on Teesside, has been temporarily closed in the latest sign of how tumbling oil and bioethanol prices are affecting the green fuel industry.
<http://www.ft.com/intl/cms/s/0/53227fae-b78c-11e4-981d-00144feab7de.html#axzz3SGPo449d>

Murphy USA: Hereford ethanol plant achieves record annual income

Murphy USA Inc. has released 2014 financial results, reporting the company's ethanol plant in Hereford, Texas, achieved record annual income of \$20.1mn last year, up from \$2.9mn in 2013. The increase is attributed to a 3% improvement in yields and higher crush spreads. Operating income for the Hereford plant was \$4.1mn in the fourth quarter, up from \$2.8mn during the same period of the prior year due improved efficiency in operations and improved yields.

According to the company, the improved efficiencies and higher yields have resulted since the completion of the planned maintenance shutdown during the first and third quarters of last year.
www.ethanolproducer.com/articles/11887/murphy-usa-hereford-ethanol-plant-achieves-record-annual-income

ISA launches B20 Club

The Illinois Soybean Association launches a new club for biodiesel users. ISA is joining forces with the American Lung Association, who went in on the project because of its desire for lower emissions and cleaner air.

The club will help other charter members, who are using B20, or 20% biodiesel blends, get the latest resources on these products. They also will likely work together on increasing the blend percentage for commercial use.

www.centralillinoisproud.com/story/d/story/isa-launches-b20-club/92289/73CSdBLoM0eqg5mINj6ELA

Heridge forms Atlantic Biodiesel to manage former GLB plant

The former Great Lakes Biodiesel plant in Welland, Ontario, Canada, has new ownership after GLB lender Heridge S.a.R.L.'s stalking horse bid won the assets from a recent bankruptcy auction. Heridge formed the subsidiary Atlantic Biodiesel Corp. to manage operations in Welland.

www.biodieselmagazine.com/articles/297418/heridge-forms-atlantic-biodiesel-to-manage-former-glb-plant

RFA: Study reveals wide-ranging economic impact of ethanol

At this year's National Ethanol Conference, the Renewable Fuels Association released a new ABF Economics study titled "Contribution of the Ethanol Industry to the Economy of the United States in 2014," which quantified the economic, national security, and job creating benefits of domestic ethanol production in 2014.

The study revealed that last year the ethanol industry was responsible for 83,949 direct jobs and 295,265 indirect and induced jobs. In addition to good-paying, non-exportable jobs, the ethanol industry added \$52.7 billion to the national GDP, \$26.7 billion to household incomes, and \$10.3 billion in taxes, which help stimulate the national, state, and local economies. The study also revealed that the 14.3 billion gallons of ethanol produced in 2014 displaced an immense 515 million barrels of foreign oil, which carries a monetary value of almost \$49 billion.

www.ethanolproducer.com/articles/11943/rfa-study-reveals-wide-ranging-economic-impact-of-ethanol

Golden Grain Energy produces 1 billionth gallon of ethanol

<http://www.ethanolproducer.com/articles/11935/golden-grain-energy-produces-1-billionth-gallon-of-ethanol>

Murphy USA to offer E15 in suburbs of Chicago, Houston

Murphy USA Inc. has announced plans to bring E15 to consumers in the suburbs of Chicago and Houston this year. According to the company, the decision to expand E15 availability was made after several successful introductions of E15 in Iowa.

www.ethanolproducer.com/articles/11930/murphy-usa-to-offer-e15-in-suburbs-of-chicago-houston

Regenis, DVO launch AD facility at California ethanol plant

Sustainable energy production has entered a new era in California as a consortium of American companies recently joined together with state energy officials to launch the Calgren Ethanol Biodigester, which utilizes waste from dairy farms to power the production of tens of millions of gallons of ethanol, all consumed in the Central Valley.

The two-stage mixed plug flow digester was designed by DVO Inc. of Wisconsin and built by Regenis, the largest builder of digesters in the western United States. It is the first California digester to use agricultural waste to create renewable natural gas to power another renewable energy facility, creating a step forward in a virtuous, zero waste lifecycle.

www.ethanolproducer.com/articles/11932/regenis-dvo-launch-ad-facility-at-california-ethanol-plant

Wisconsin ethanol industry helps drive record high export totals

Export numbers from the Wisconsin Department of Trade, Agriculture and Consumer Protection show an 18% increase in ethanol exports from Wisconsin, totaling an export value of over \$250mn and driving Wisconsin's export totals to an all-time high.

www.ethanolproducer.com/articles/11941/wisconsin-ethanol-industry-helps-drive-record-high-export-totals

SRS Int'l, Biodiesel Experts partner to offer enzymatic process

SRS International Corp. has partnered with Biodiesel Experts International LLC to provide turnkey biodiesel refineries worldwide. The partnership combines SRS' proven biodiesel technology for traditional chemical processes and Biodiesel Experts' enzymatic technical process knowledge, allowing SRS to supply turnkey enzymatic biodiesel production facilities.

www.biodieselmagazine.com/articles/297533/srs-intl-biodiesel-experts-partner-to-offer-enzymatic-process

NREL: Biodiesel leads biofuels growth in US

The latest numbers from the federal government shows biodiesel was the leader in growth among biofuels in the United States. The National Renewable Energy Laboratory's (NREL) 2013 Renewable Energy Data Book showed good gains for many of the renewable energy industries, while energy consumption from petroleum actually slumped, despite an overall increase in the amount of energy consumed.

<http://domesticfuel.com/2015/02/23/nrel-biodiesel-leads-biofuels-growth-in-us/>

Ethanol plants, growers partner with Syngenta

Corn feedstock is the single biggest input cost for an ethanol plant, and ethanol yield per bushel is one of the most important drivers of plant profitability. Because higher quality corn means higher ethanol yields, Syngenta is working with ethanol plants to help growers improve grain quality and earn a premium for doing so.

www.ethanolproducer.com/articles/11971/ethanol-plants-growers-partner-with-

[syngenta](#)

A Niche Within the NGV Niche: Renewable Natural Gas Examined

www.naturalgasintel.com/articles/101230-a-niche-within-the-ngv-niche-renewable-natural-gas-examined

North East biomass expert joins national trade board

The co-founder of a Northumberland biomass heating specialist has been announced as the new board member for the industry's largest trade association.

Neil Harrison launched Alnwick-based firm re:heat with Ben Tansey in 2011. Their expertise and innovation in the field of biomass has seen re:heat informing Government reports and transforming heating systems in schools, hospitals and businesses across the North East and further afield.

Having played an instrumental role in the Wood Heat Association's (WHA) establishment, Mr Harrison has been voted onto the association's first democratically elected board of directors. He was elected to the role after a vote among the 200 plus members who make up the WHA, the UK trade association for the modern wood heating industry.

<https://bdaily.co.uk/industrials/04-02-2015/north-east-biomass-expert-joins-national-trade-board/>

How the Chinese are turning fecal sludge into 'black gold'

www.eco-business.com/news/how-chinese-are-turning-fecal-sludge-black-gold/

Big Demand, small supply

Even while taking advantage of recent export opportunity to China, the U.S. sorghum industry continues developing long-term markets, like supplying California's ethanol plants with bigger volumes of feedstock.

www.ethanolproducer.com/articles/11893/big-demand-small-supply

New president to lead Poet-DSM joint venture

Poet-DSM Advanced Biofuels' commercial activities will be moving forward under the leadership of the joint venture's first president, Dan Cummings.

www.ethanolproducer.com/articles/11920/new-president-to-lead-poet-dsm-joint-venture

Record ethanol performance brings top earnings to The Andersons

The Andersons Inc. reported record earnings in 2014 with the ethanol group delivering full-year operating income of \$92.3mn, far exceeding its prior best year of \$40.6mn in 2013.

www.ethanolproducer.com/articles/11923/record-ethanol-performance-brings-top-earnings-to-the-andersons

CropEnergies reports increased revenue

European-based CropEnergies AG has announced revenues of €626 million (\$710.42 million) for the first nine months of fiscal year 2014/2015, up 9.4% from €573 million in revenue reported for the same period of the prior year. According to the company, increased consumption and the expansion of trading activities contributed to the growth.

www.ethanolproducer.com/articles/11908/cropenergies-reports-increased-revenue

Biodiesel's role in meeting AB 32 goals presented at Calif. Event

www.biodieselmagazine.com/articles/309933/biodiesels-role-in-meeting-ab-32-goals-presented-at-calif-event

New year, new questions, new possibilities

The Canadian industry has innovative producers pursuing the opportunities in the broader bioeconomy, writes Andrea Kent of the Canadian Renewable Fuels Association. Canada is well positioned to become a leader in advanced biofuels and bioproducts.

<http://www.ethanolproducer.com/articles/11899/new-year-new-questions-new-possibilities>

Gentoo Group project in low-carbon biomass boost

3.9m investment in low carbon testing and energy efficiency measures helping heat Washington homes and keeping residents warm during the cold snap. Nearly 100 Gentoo properties in Glebe, Washington, are now being heated from a central boiler that can use gas or be fired by wood pellets (biomass).

All the properties have also been upgraded and re-fitted with the latest energy conservation measures to help them keep snug. As well as keeping homes warm, the project is reducing energy costs, tackling fuel poverty, contributing to local and national carbon reduction targets, and helping to create jobs. As a Low Carbon Energy Demonstration project, the heating system and energy conservation measures are a showpiece for how Small and Medium Sized Enterprises (SMEs) can improve their capacity, skills and environmental management, and help meet the demand for innovative low carbon and renewable energy measures.

The project secured a £1.94m grant from the European Regional Development Fund, which is managed by the Department for Communities and Local Government, plus additional investment from Gentoo Group, and the City Council. It is testing and then determining the most energy efficient solutions to different challenges and taking this information forward to future projects.

<https://bdaily.co.uk/environment/13-02-2015/gentoo-group-project-in-low-carbon-biomass-boost/>

Kenya: New Jiko to help families save on charcoal

At least 5.6 million Kenyans cook their food using charcoal and of these, 15,000 die each year from smoke-related diseases, according to the Ministry of Environment. It is in this regard that two local firms have unveiled the latest entrant into Kenya's lucrative cookstove (jiko) market.

The new 'Digital Jiko La Makaa' cookstove was launched by Envirofit International and Kaluworks Company in Meru. The stove is designed to pull in air through the opening mouth and side slots below the charcoal. Ron Bills, Envirofit's CEO, says they spent more than 18 months conducting consumer research and user acceptance studies to develop a jiko that satisfies customers' needs at an affordable price.

Winnie Nailantei, the company's head of training, says the modification maximises airflow, which super heats the gases to burn the charcoal "more completely" while directing the heat into the pot. "The extra lining around the inner chamber is designed to insulate the stove, keeping most of the heat inside. This results in a 230 per cent improvement in thermal efficiency when compared to an open fire. This means more of the charcoal is converted into energy that heats the pot as opposed to being released in the form of harmful toxic emissions. Kaluworks, the manufacturers, target selling at least 100,000 units by the end of 2015.

<http://allafrica.com/stories/201502131271.html>

How biolite's camping stoves became a life-saver in the developing

world

Burning coal inside open fires in small buildings is an enormous killer in the developing world. The BioLite stove was originally developed for campers, but when its creators realized it could also help solve the problem of cookstoves in the developing world, the company took off in a whole different direction.

www.fastcompany.com/3042361/how-biolites-camping-stoves-became-a-life-saver-in-the-developing-world

Short-term pain long-term gain

The recent fall in oil prices makes an even stronger case for all forms of domestic energy, both renewable and nonrenewable, writes Mike Bryan. In fact, the current situation makes a strong case for greater energy independence in general.

www.ethanolproducer.com/articles/11902/short-term-pain-long-term-gain

The production of global biofuels market is expected to reach 50,921.4mn gallons by 2019: TMR

www.digitaljournal.com/pr/2478992

Merrick signs with Genifuel for Reliance Industries hydrothermal processing pilot system

In Colorado, Merrick & Company has signed with Genifuel Corporation to provide the design and commissioning of a hydrothermal processing pilot system for Reliance Industries, Ltd. Merrick is responsible for the design of the facility, from front end engineering through detailed design and testing.

The system will process whole algae into biocrude, fuel gas, and usable byproducts, Unlike traditional extraction methods, which separate lipids out of algae to make biodiesel. This doubles the yield of biofuel from algae and cuts the cost of production by 86%.

www.biofuelsdigest.com/bdigest/2015/02/23/merrick-signs-with-genifuel-for-reliance-industries-hydrothermal-processing-pilot-system/

The world's quietest \$5bn company opens up

BioAmber announced a stunning 210,000 ton per year take-or-pay contract for bio-based succinic acid with Vinmar International. For a renewable chemicals project, it was literally "business-making" deal size. The Vinmar take-or-pay contract, together with the take-or-pay agreement signed in April 2014 with PTTMCC Biochem (a joint venture between Mitsubishi Chemical and PTT of Thailand), guaranteed the sale of 50% of the Sarnia plant capacity during the first three years of operation and 33% of plant capacity for the following 12 years.

www.biofuelsdigest.com/bdigest/2015/02/23/the-worlds-quietest-5b-company-opens-up/

RFA acquires E85prices.com

The Renewable Fuels Association recently announced that it has acquired E85prices.com, which is a crowdsourced website that offers updated prices for E85 and other ethanol flex-fuels including E15—from thousands of stations across the country. In addition to E85prices.com, RFA acquired 11 new websites and a new mobile app to strengthen its online presence and its ability to provide up-to-the-minute information on the availability and pricing of E85 and other ethanol flex-fuels.

www.ethanolproducer.com/articles/11965/rfa-acquires-e85prices-com

Byogy Renewables, Gen 2 Energy enter partnership agreement

Byogy Renewables, a biofuels producer based in San Jose, California, has executed a strategic partnership agreement with Gen 2 Energy, an alternative energy company from Ames, Iowa, to develop a more cost-effective biofuel production process.

www.ethanolproducer.com/articles/11974/byogy-renewables-gen-2-energy-enter-partnership-agreement

Aventine installs corn oil system at Nebraska plant

Aventine Renewable Energy Inc. has announced the successful installation of a \$2.4mn Valicor corn-oil separation system at its Nebraska Energy LLC plant in Aurora, Nebraska.

www.ethanolproducer.com/articles/11967/aventine-installs-corn-oil-system-at-nebraska-plant

Growth Energy announces new partnership with Mycogen Seeds

Growth Energy has welcomed Mycogen Seeds, the national retail seed company of Dow AgroSciences, as a premiere associate member.

"We applaud Mycogen Seeds for recognizing the role ethanol plays in strengthening American agriculture and for supporting our nation's homegrown food, feed and fuel solution," said Growth Energy CEO Tom Buis. "Ethanol is fueling our future by creating jobs, improving the environment and increasing our nation's energy independence, while also providing consumers with a choice and savings at the pump. We look forward to collaborating with Mycogen Seeds, a leader in seed innovation."

www.ethanolproducer.com/articles/11968/growth-energy-announces-new-partnership-with-mycogen-seeds

Fortum's Markus Rauramo in Brussels: Competitive heat markets help in reaching EU climate and energy targets

"The heat sector can have a major impact on reaching the EU climate and energy targets for 2030, improving energy efficiency and ensuring security of supply. There is an urgent need for an EU-level heat strategy to promote competition between different heating methods," said Markus Rauramo, Executive Vice President for Fortum's Heat, Electricity Sales and Solutions Division, in his remarks at the European Heating and Cooling conference in Brussels.

www.globenewswire.com/news-release/2015/02/27/710616/0/en/Fortum-s-Markus-Rauramo-in-Brussels-Competitive-heat-markets-help-in-reaching-EU-climate-and-energy-targets.html

Golf club 'goes green' as it installs new biomass boiler

http://www.theboltonnews.co.uk/news/11819741.Golf_club_goes_green_as_it_installs_new_biomass_boiler/

£70mn biomass plant delayed to improve sustainability

Construction of a £70 million biomass plant in Greater Manchester has been delayed in order to improve its sustainability.

The Barton Renewable Energy Plant, being constructed by Peel Energy will have a capacity of 20MW of electricity and generate power equivalent to the annual electricity of roughly 37,000 homes. It would also have the capacity to process 200,000 tonnes of waste wood per year. But according to reports, the project has been delayed while it considers a local district heating scheme for local developments and businesses in the surrounding area.

www.energylivenews.com/2015/02/26/70m-biomass-plant-delayed-to-improve-sustainability/

Happy Energy passes £11mn mark

A Cornish business has doubled its second-year revenues to over £11 million and is creating new job opportunities in the county as a result of the growing interest in domestic and commercial energy efficiency.

Happy Energy, launched in January 2013 by Adrian Wright and based at Pool Innovation Centre, is growing on the back of a multi-million pound biomass boiler initiative launched in Cornwall last year.

The initiative offers qualifying businesses and homes a free biomass boiler, installed and fully maintained, which burns wood pellets to generate energy, replacing old, inefficient oil and LPG boilers.

www.businesscornwall.co.uk/latest-news/happy-energy-passes-11m-mark-123

Drax pre-tax profits rise on stronger power sales

British power producer Drax reported a rise in 2014 pre-tax profit as it made more money from selling electricity but warned of a challenging year ahead due to an expected fall in profits from burning biomass in power plants.

Pre-tax profit rose to 166mn pounds from 32mn helped by a 38 percent rise in revenue to 2.45bn pounds. Drax said it would pay a total dividend of 11.9 pence per share for 2014, down from 17.6 pence. The power producer also reiterated plans to convert a third coal-fired power unit to run on biomass.

www.euronews.com/business-newswires/2955670-drax-pre-tax-profits-rise-on-stronger-power-sales/

Renewable energy: Biomass can solve power crisis, improve environment

<http://tribune.com.pk/story/843614/renewable-energy-biomass-can-solve-power-crisis-improve-environment/>

Shanks doubles capacity of Cumbernauld AD facility

Waste treatment firm Shanks is close to increasing the capacity of its Cumbernauld anaerobic digestion facility by double.

www.letsrecycle.com/news/latest-news/shanks-doubles-capacity-cumbernauld-ad-facility/

Over 100 waste collection trucks in UAE to run on biofuel by 2015 end

Waste management company Imdaad started using biofuel in six trucks and will convert entire fleet by end of year.

<http://gulfnews.com/news/gulf/uae/environment/over-100-waste-collection-trucks-in-uae-to-run-on-biofuel-by-2015-end-1.1456061>

USDA releases first monthly corn crush and coproducts report

The first monthly survey of industrial grain crush and coproducts was released Feb. 19 by the USDA National Agricultural Statistics Survey, showing corn and sorghum consumption data for fuel ethanol, beverage alcohol and other uses. The first report covered the last quarter of 2014, launching regular monthly reports by NASS under the Current Agricultural Industrial Report program.

<http://www.ethanolproducer.com/articles/11945/usda-releases-first-monthly-corn-crush-and-coproducts-report>

House bills aim to alter, eliminate the RFS

On Feb. 4, Rep. Bob Goodlatte, R-Va., announced the introduction of two bills that aim to alter the renewable fuel standard (RFS), including the RFS Elimination Act and the RFS Reform Act. Reps. Peter Welch, D-Vt.; Steve Womack, R-Ark.; and Jim Costa, D-Calif. have also sponsored the RFS Reform Act, with a total of 34 members of Congress signing on as cosponsors. According to Goodlatte, 38 members of Congress have cosponsored the RFS Elimination Act. Both bills will be referred to the House Energy and Commerce Committee.

www.ethanolproducer.com/articles/11884/house-bills-aim-to-alter-eliminate-the-rfs

Low-carbon fuel bill headed for Senate vote

A bill to make Oregon's low-carbon fuels program permanent is headed to the state Senate for a vote, after lawmakers passed it out of committee.

www.wallowa.com/bme/capital-bureau/20150205/low-carbon-fuel-bill-headed-for-senate-vote

Oregon bills aim to remove sunset date from Clean Fuels Program

Efforts are underway in Oregon to repeal the Dec. 31 sunset date under the state's Clean Fuels Program. Several bills pending in the Oregon legislature aim to remove the sunset date, allowing the program to be implemented past the end of this year.

On Jan. 7, the Oregon Environmental Quality Commission voted 4 to 1 to approve rules for the second phase of the Oregon Clean Fuels Program. The program, which is similar to California's Low Carbon Fuel Standard, requires a 10% reduction of greenhouse gases (GHGs) from transportation fuels over a 10-year period. The rules took effect Feb. 1.

www.ethanolproducer.com/articles/11881/oregon-bills-aim-to-remove-sunset-date-from-clean-fuels-program

New mandatory reporting requirements impact biofuel companies

The U.S. Bureau of Economic Analysis has reinstated certain reporting requirements for foreign direct investments in the U.S. that had been abolished in 2009. These requirements impact all foreign biofuels companies that make a qualifying foreign direct investment in a company in the U.S. and all U.S. biofuels companies that receive a qualifying foreign direct investment from a company or individual overseas. According to these requirements, U.S. affiliates of foreign companies must file a Form BE-13 with the BEA for certain activities undertaken in the U.S. "U.S. affiliates" are all U.S. business entities in which a foreign company or foreign individual owns directly or indirectly at least 10 percent of the voting interest (or the equivalent of such voting interest).

www.biodieselmagazine.com/articles/295358/new-mandatory-reporting-requirements-impact-biofuel-companies

Revised ASTM standard expands trace FAME limit in jet fuels

A new revision to ASTM International's Aviation Turbine Fuel Standard (ASTM D1655) safely adapts to the growing global presence of biodiesel in the petroleum industry.

ASTM D1655 has been used for decades by the aviation community to help ensure quality control and safe distribution of jet fuel. Biodiesel blends, which have a small percentage of fatty acid methyl esters (FAME), increasingly use the same distribution systems (e.g., shipping containers, pipelines, etc.) as jet fuel. After biodiesel is transported through a distribution system, there is a possibility that traces of FAME may be picked up by jet fuel, which later uses that same distribution system.

www.biodieselmagazine.com/articles/295372/revised-astm-standard-expands-trace-fame-limit-in-jet-fuels

Brazil to raise ethanol blend in gasoline to 27% from 25% on Feb 15

The higher blend is the latest of several measures taken by the government expected to have a positive effect on the industry's bottom line going forward.

www.reuters.com/article/2015/02/02/brazil-ethanol-blend-idUSL1N0VC0X120150202

Hundreds of Dubai municipal vehicles to fuel up with biodiesel

Neutral Fuels LLC and the Municipality of Dubai in the United Arab Emirates have signed an agreement for Neutral Fuels to supply biodiesel to Dubai for use in hundreds of municipal vehicles. Karl Feilder, CEO and chairman of Neutral Fuels, told Biodiesel Magazine that, when fully executed, the supply agreement with Dubai will amount to approximately 2.5 MMgy.

Neutral Fuels has been producing biodiesel in the UAE since 2010, when it became the first biodiesel manufacturer ever to be licensed in Dubai.

www.biodieselmagazine.com/articles/298170/hundreds-of-dubai-municipal-vehicles-to-fuel-up-with-biodiesel

EIA increases 2015 ethanol production forecast

The U.S. Energy Information Administration has published the February issue of its Short-Term Energy Outlook, reporting ethanol production is expected to average 938,000 barrels per day this year.

www.ethanolproducer.com/articles/11919/eia-increases-2015-ethanol-production-forecast

USDA projects 75mn bushel increase in corn for ethanol production

USDA put a number to a projected increase in ethanol use in its Feb. 10, supply/demand report. Based on the higher forecasts for 2015 gasoline consumption coming for the U.S. Energy Information Administration, the USDA raised expected corn use for ethanol production by 75 million bushels, from 5.18 billion bushels last month to 5.25 billion bushels.

www.ethanolproducer.com/articles/11913/usda-projects-75m-bushel-increase-in-corn-for-ethanol-production

EPA names 10 more efficient corn ethanol producers

Ten more corn ethanol plants were approved through the U.S. EPA's efficient producer petition process (EP3) at the end of January, bringing the total to 19. The first round of nine approvals were announced in December.

www.ethanolproducer.com/articles/11912/epa-names-10-more-efficient-corn-ethanol-producers

Nigeria: Controversy over clean cookstove unnecessary - Minister

Minister of Environment Mrs. Laurentia Mallam has said that the controversy surrounding the recent contract awarded by the Federal Executive Council to Integra Renewable Energy Services Limited to supply 750,000 clean cook stoves and 18,000 wonder bags at the cost of N9.6 billion was uncalled for.

But participants and members of the Nigerian Alliance for Clean Cookstoves unanimously agreed that the federal government should use the N9.6 billion to stimulate local production of cylinders and cook stoves.

This, according to them, would trigger private sector investments and create jobs. Rather than "Spending this huge amount of money on free stoves, this fund should be used to provide low or no interest loans to investors, support the expansion of LPG infrastructure and create public

awareness on the benefits of clean cooking. The N9.6 billion should form the basis for launching a household energy fund and removal of duties and VAT on household energy equipment," they said.

www.allafrica.com/stories/201502041204.html

IRENA report highlights bioenergy growth potential in the US

The International Renewable Energy Agency has published a report that highlights the realistic potential for higher renewable uptake in all sectors of the US energy system, including power, industry, building and the transportation sector. The report, titled "Renewable Energy Prospects: United States of America," addresses the potential of several types of renewable energy, including bioenergy and biofuels.

It is based on information included in REmap 2030, a global roadmap developed by IRENA that looks at the realistic potential for higher renewable uptake in the US.

www.ethanolproducer.com/articles/11922/irena-report-highlights-bioenergy-growth-potential-in-the-u-s

Biomass requirements to be included in New Green Building Standard

The development of biomass requirements is being explored by ASHRAE, U.S. Green Building Council (USGBC) and the Illuminating Engineering Society (IES), for inclusion in their co-sponsored green building standard.

www.forconstructionpros.com/press_release/12043074/ashrae-usgbc-ies-agree-to-develop-biomass-requirements-for-green-building-standard

Project launched to improve air quality in Omaha area

Ethanol can be part of a winning strategy to improve air quality in the Omaha area, says the Nebraska Ethanol Board. The association recently started a conversation about ways to lower the levels of toxic compounds mixed in gas.

www.ethanolproducer.com/articles/11906/project-launched-to-improve-air-quality-in-omaha-area

CARB issues LCFS pathway for Sustainable Oils' patented camelina

Sustainable Oils Inc., a wholly owned subsidiary of Global Clean Energy Holdings Inc., has been issued a first-of-its-kind feedstock-only pathway by the California Air Resources Board for the production of camelina-based fuels under the low carbon fuel standard (LCFS).

The pathway, when combined with a specific processors production profile, will produce the lowest carbon intensity (CI) virgin oil-based fuel available in the marketplace. Camelina-based biodiesel at a CI of approximately 19 g/MJ can be produced at a fraction of soy (83 g/MJ) or canola (63 g/MJ) based biofuels. Camelina's extremely low CI will allow obligated parties in California to meet their reduction targets using a fraction of the biofuel otherwise required.

www.biodieselmagazine.com/articles/307040/carb-issues-lcfs-pathway-for-sustainable-oils-patented-camelina

USDA releases 10-year projections

The USDA has released new 10-year projections for the food and agricultural sector, reporting that approximately 35% of total corn use is projected to go to ethanol production through 2024.

www.ethanolproducer.com/articles/11926/usda-releases-10-year-projections

Guidance to report on land use, land-use change and forestry

emissions

Greenhouse gas emissions and removals from the land use, land-use change and forestry (LULUCF) sector need to be included in EU reports under the Kyoto Protocol.

www.phys.org/news/2015-02-guidance-land-use-forestry-emissions.html

WRI's Searchinger says land and crops should not be used for bioenergy production, biofuels not curbing climate change

As Congress debates the future of the renewable fuel standard and biofuels continue to face political hurdles, the World Resources Institute's latest report on bioenergy production makes the case against using land and crops for bioenergy and contends biofuels are not helping to curb climate change. Timothy Searchinger, a senior fellow at the World Resources Institute and lead author of the report, discusses the research and the impact he believes it should have on policy discussions.

www.eenews.net/tv/videos/1937/transcript

Stockholm Power goes green as wood ousts coal: Carbon & Climate

For a lesson in global energy history, look no further than Stockholm's oldest power plant. Since 1903, Fortum Oyj's Vaerta harbor site has generated power using coal, oil, natural gas and even considered nuclear. Now it's phasing out the last coal furnace and replacing it with the world's largest combined heat and power generator that will burn just wood chips and timber scraps by next year.

"It's like looking at the growth rings of Swedish energy policy," Ulf Wikstroem, an environmental manager at Fortum, said by phone Jan. 13 from Stockholm. "We plan to have the whole plant running on biomass by 2030 at the latest."

Fortum's \$530 million project is part of the region's push toward green energy. Biomass, which can include everything from waste and residue from wood to leftover food and cow dung, is poised to supplant fossil fuels as early as 2018, according to Markedskraft ASA, an energy adviser in Arendal, Norway.

Denmark's Dong Energy A/S is switching half of its coal generators to biomass by 2020. Sweden's Vattenfall AB is also increasing biomass use, while limiting output at fossil-fuel units, the main source of global carbon-dioxide emissions.

While not the cleanest form of energy, burning wood has little impact on the climate because it has already soaked up from the atmosphere during its lifetime as much carbon dioxide as it releases as a fuel. Sweden, the Nordic region's biggest economy, surpassed its 2020 European Union target of 49 percent renewable energy in 2012. The share will reach 57 percent by 2030 with current policies, according to the Swedish Energy Agency.

www.bloomberg.com/news/articles/2015-02-09/stockholm-power-goes-green-as-wood-ousts-coal-carbon-climate

Efficient Producers Up the Ante: Proving GHG reduction to the U.S. EPA now boils down to four numbers

Four key numbers representing the mass and energy balances of an ethanol plant—bushels of corn, gallons of ethanol, standard cubic feet for natural gas and kilowatt-hours for electricity—plugged into a new U.S. EPA spreadsheet will calculate an ethanol plant's life-cycle greenhouse gas (GHG) emissions. The threshold to beat is a 20% reduction in GHG emissions compared to the baseline gasoline, which is what is needed for a plant to generate renewable identification numbers (RINs) above the volume grandfathered in under the renewable fuel standard. The EPA's new petition process—dubbed EP3 for efficient producer petition process—promises to speed up the agency's review of efficient corn ethanol plants seeking to increase their allowable

RINs generation.

www.ethanolproducer.com/articles/11896/efficient-producers-up-the-ante

UAI, EFC urge recognition of ethanol as a way to reduce carbon

The California Air Resources Board was urged to enhance its efforts to require low carbon fuels by supporting the increased use of clean burning ethanol as a means of displacing aromatics in gasoline to reduce carbon and protect public health.

Comments submitted to the agency by The Energy Future Coalition and the Urban Air Initiative urged CARB to look at best available science which reflects significant improvements in the total life cycle of ethanol. The groups pointed out that according to the U.S. Energy Information Administration, conventional automobiles operating on petroleum products will continue to be the dominant fuel for decades. The California goal of reducing the carbon intensity of transportation fuels in the state will need to focus on the liquid fuels that EIA predicts will be 95% of the market.

www.ethanolproducer.com/articles/11937/uai-efc-urge-recognition-of-ethanol-as-a-way-to-reduce-carbon

California GHG reporting obligations extend to ethanol

California has embarked upon the most aggressive greenhouse gas (GHG) reduction program in the world. As a result of California's Mandatory Reporting of Greenhouse Gas Emissions program (the MRR), biofuel producers, position holders, and companies that import ethanol into California are subject to reporting obligations. The California Air Resources Board has aggressively pursued enforcement actions against companies that failed to timely report in other sectors.

www.ethanolproducer.com/articles/11975/california-ghg-reporting-obligations-extend-to-ethanol

EU committee votes to cap first-generation biofuels

On Feb. 24, the Environment Committee of the European Parliament approved a draft law to cap the production of traditional biofuels and accelerate the shift to alternative feedstocks, such as seaweed and waste. According to information released by the committee, the law aims to reduce greenhouse gas (GHG) emission that result from the growing use of agricultural land to produce biofuel crops.

www.ethanolproducer.com/articles/11961/eu-committee-votes-to-cap-first-generation-biofuels

Municipal Review Committee (MRC) to pursue a partnership with Maryland-based Fiberight

The partnership is for the construction of a \$60 million state-of-the-art solid waste processing facility in Hampden.

<http://freepressonline.com/main.asp?SectionID=52&SubSectionID=78&ArticleID=37321>

Oregon Senate passes low-carbon fuel bill

<http://www.eastoregonian.com/eo/capital-bureau/20150217/oregon-senate-passes-low-carbon-fuel-bill>

EU on track for green energy goal but UK, Dutch lagging

EU nations are on track to meet a target to get one fifth of their energy from renewable sources by 2020, even though Britain, the Netherlands and Luxembourg are lagging behind, the European Environment Agency (EEA) said. The EEA, which provides analysis to EU policymakers, said energy from sources such as wind and solar had become much cheaper. As a result, alternatives had displaced coal and gas, cut carbon emissions and improved energy security. Without green

energy, coal use would have been 13% higher and 7% more natural gas would have been consumed in 2013, at a time when EU gas reserves are dwindling, the EEA said in its latest progress report.

Around 60 percent of the EU's renewable energy comes from biomass, which is environmentally sound when made from waste, but can result in the clearing of forests to make wood pellets to be burnt instead of coal. Environment campaigners say U.S. forests are being plundered to make pellets for export to Europe. They are calling for limits on how much energy can come from biomass along the lines of a cap already being negotiated for biofuels.

www.reuters.com/article/2015/02/17/us-eu-renewables-idUSKBN0LLOY320150217

DOE announces biomass advisory committee meeting

The U.S. Department of Energy has announced an open meeting of the Biomass Research and Development Technical Advisory Committee will be held March 5-6 in Washington, D.C. The agenda is scheduled to include an update on USDA and DOE biomass research and development activities. It will also include an update on the Biomass Research and Development Initiative and an update on the DOE Bioenergy Technologies Office upcoming funding opportunities announcements. In addition, the meeting is scheduled to address the committee plan for 2015.

www.ethanolproducer.com/articles/11978/doe-announces-biomass-advisory-committee-meeting

Oregon Sen. Wyden wants biomass in federal buildings

Oregon Senator Ron Wyden is touting the success of the biomass programs in Oregon, and is asking federal government to replicate that success within the state. According to KTVZ, the senator believes the federal government should use the same renewable energy tactics when it builds or leases federal facilities in Oregon.

Sen. Wyden wrote a letter to General Services Administrator Dan Tangherlini and U.S. Forest Services Chief Thomas Tidwell, asking them to rethink their limitations on using biomass for heat, or combined heat and power, in federal facilities.

www.fierceenergy.com/story/oregon-sen-wyden-wants-biomass-federal-buildings/2015-02-22

Biofuel industry criticizes Toomey, Feinstein RFS bill

On Feb. 26, Sens. Pat Toomey, R-Pa., and Dianne Feinstein, D-Calif., introduced the Corn Ethanol Mandate Elimination Act of 2015. The bill, which is cosponsored by Sen. Jeff Flake, R-Ariz., aims to alter the renewable fuel standard (RFS). Earlier this year, Toomey and Feinstein attempted to introduce the same measure as an amendment to the Keystone pipeline bill. However, it was not brought to a vote.

Fuels America hosted a media call on the introduction of the act. Bob Dinneen, president and CEO of the Renewable Fuels Association, opened the call by calling the legislation "a misguided solution in search of a problem." He criticized Toomey for saying ethanol drives up gas and food prices, stressing he couldn't be more wrong. He also criticized Feinstein for her argument that corn ethanol is getting in the way of advanced biofuels.

www.biomassmagazine.com/articles/11603/biofuel-industry-criticizes-toomey-feinstein-rfs-bill

Process of developing an Ecowas policy on women and energy kicks off

The development of a policy that will help address barriers hindering participation of women in energy access in the Economic Community of West African States (ECOWAS) region is underway. The policy is being developed together with a strategy that will guide its implementation across

the countries. The process was launched during a workshop at the African Development Bank (AfDB) headquarters in Abidjan, Côte d'Ivoire.

The initiative is being spearheaded by the AfDB in collaboration with the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), and United States-based National Renewable Energy Laboratory (NREL).

www.allafrica.com/stories/201502261185.html

Finance & Investment

Business Minister announces £50mn waste fund

Business minister Matthew Hancock announced a £50mn investment by the UK Green Investment Bank (GIB) into a new fund targeting smaller-scale recycling and waste projects across the UK. The new fund – Recycling and Waste LP (“RAW”) – was announced during a visit to the £47mn Birmingham BioPower project, a beneficiary of GIB funding which is currently under construction in Tyseley.

Construction of the facility is well advanced and it will, when operational, process up to 67,000 tonnes of recovered wood every year to produce electricity. The recovered wood will be supplied by local small business, JM Envirofuels Ltd.

The RAW fund will be managed by investment specialist Foresight Group which plans to raise at least a further £50m from private sector co-investors to match GIB’s investment. A GIB spokesman explained that it would “span the full range of recycling and waste technologies” and that Foresight would assess applications on a case-by-case basis. He added that the fund would come out of the GIB’s overarching £3.8 billion budget and represented new investment in the waste and recycling sector.

www.letsrecycle.com/news/latest-news/gib-story/

Ohio Corn Marketing Program to expand ethanol infrastructure

The Ohio Corn Marketing Program, in partnership with the American Lung Association of the Upper Midwest and the American Lung Association of the Midland States, is pleased to announce, The Ethanol Infrastructure Grant Program, a new grant funding opportunity for petroleum marketers to significantly expand the reach of ethanol compatible fuel in the Ohio marketplace.

www.ethanolproducer.com/articles/11879/ohio-corn-marketing-program-to-expand-ethanol-infrastructure

USDA holds media call on \$280mn REAP funding opportunity

On Feb. 10, the USDA hosted a media call announcing more than \$280 million is being made available to eligible applicants through the Rural Energy for America Program. REAP, which was established by the 2008 Farm Bill and reauthorized by the 2014 Farm Bill, is designed to help agricultural producers and rural small businesses reduce energy costs and consumption.

The REAP program provides grants and loans to help rural small business owners, farmers and ranchers make energy efficiency improvements and install renewable energy systems. During the call, Agricultural Secretary Tom Vilsack explained \$80 million is available in grant funding, along with \$200 million for loans. Grants can finance up to 25 percent of an energy efficiency or renewable energy project, with a \$250,000 limit set for energy efficiency grants and a \$500,000 limit for renewable energy system grants. Grants can also be combined with REAP loan guarantees, which can support up to 75 percent of project costs, with a cap of \$25 million.

Eligible renewable energy projects must incorporate commercially available technology. This

includes renewable energy from wind, solar, ocean, small hydropower, hydrogen, geothermal and renewable biomass (including anaerobic digesters).

www.ethanolproducer.com/articles/11915/usda-holds-media-call-on-280-million-reap-funding-opportunity

Blume Distillation lands \$1mn Series B funding

Blume Distillation LLC just doubled its Series B capitalization with a \$1 million capital infusion from cleantech seed and venture capital fund, Climate Change Investigation, Innovation and Investment Co. CC3IC's investment is expected to accelerate the company's intellectual property (IP) filings and licensing, as well as the design, development and commercial roll-out of the Blume Distillation technology.

www.ethanolproducer.com/articles/11914/blume-distillation-lands-1-million-series-b-funding

Largest green boiler in south east funded

A nursery has increased its green credentials by installing the largest biomass boiler in the south east. Cobbins, in Ferring, installed the boiler at its nine-acre site, where the company grows flowering pot plants and house plants for supply to garden centres.

The new biomass boiler – which replaces ageing coal and oil powered versions - will bring a number of benefits to the business, including a minimum annual fuel saving of £70,000.

www.westsussextoday.co.uk/news/county-news/latest-news/largest-green-boiler-in-south-east-funded-1-6566293

US DoE awards \$10mn to develop innovative bioenergy processes

The U.S. Energy Department's Bioenergy Technologies Office announces the selection of seven projects across the country to receive up to \$10mn to support innovative technologies and solutions to help advance bioenergy development. These projects will support BETO's work to develop renewable and cost-competitive biofuels from nonfood biomass feedstocks by reducing the risk associated with potentially breakthrough approaches and technologies.

www.biodieselmagazine.com/articles/319197/us-doe-awards-10m-to-develop-innovative-bioenergy-processes

USDA expands investments in next-generation bioenergy development

Agriculture Secretary Tom Vilsack announced the availability of up to \$8.7mn in funding for bioenergy research and education efforts as well as publishing the final rule for a program that provides incentives for farmers and forest landowners interested in growing and harvesting biomass for renewable energy. Both programs are made available through the 2014 Farm Bill. The Secretary made the announcements during remarks to the Growth Energy Executive Leadership Conference in Phoenix, Arizona.

www.imperialvalleynews.com/index.php/news/latest-news/1839-usda-expands-investments-in-next-generation-bioenergy-development.html

Comet Biorefining secures funding led by Sofinnova Partners

Comet Biorefining Inc., a leader in high-quality cost-competitive cellulosic glucose technology, announces the closing of a funding round led by Sofinnova Partners. Comet will use the proceeds to complete the design of its commercial facility, expand the team and continue to develop commercial partnerships.

www.ethanolproducer.com/articles/11973/comet-biorefining-secures-funding-led-by-sofinnova-partners

Energycane varieties look promising for North Louisiana

Louisiana State University AgCenter researchers continue to evaluate energycane varieties planted in north Louisiana as a possible new crop for producers to grow as a biofuel feedstock.

About 1,000 experimental varieties of energycane were planted at the LSU AgCenter Macon Ridge Research Station in Winnsboro in 2012. A sample of about 300 that continued to show desirable characteristics was selected and replanted the following year.

www.ethanolproducer.com/articles/11877/energycane-varieties-look-promising-for-north-louisiana

IU biologists use bacterium, nitrogen gas to produce ethanol

Indiana University biologists believe they have found a faster, cheaper and cleaner way to increase bioethanol production by using nitrogen gas, the most abundant gas in Earth's atmosphere, in place of more costly industrial fertilizers. The discovery could save the industry millions of dollars and make cellulosic ethanol – made from wood, grasses and inedible parts of plants – more competitive with corn ethanol and gasoline.

The raw materials for cellulosic ethanol are low in nitrogen, a nutrient required for ethanol-producing microbes to grow, so cellulosic ethanol producers are estimated to spend millions of dollars annually on nitrogen fertilizers like corn steep liquor and diammonium phosphate. But an IU team led by biologist James B. McKinlay has found that the bioethanol-producing bacterium *Zymomonas mobilis* can use nitrogen gas (N₂) as a nitrogen source.

www.ethanolproducer.com/articles/11880/iu-biologists-use-bacterium-nitrogen-gas-to-produce-ethanol

Process could enable on-farm biofuel, animal feed production

The efficient production of both biofuel and animal feed from one crop is now possible, and can be done on a farm without the need for off-site processes. The research, published in the journal *Biotechnology for Biofuels*, demonstrates the practical potential of an alternative to fossil fuels that does not compete with food resources.

The process, known as solid-state fermentation, involves packing harvested whole rice plants with yeast and enzymes into a round bale wrapped in impermeable film. During incubation, sugars and starch in the rice plant are converted by yeast to ethanol, which accumulates and is then drained and distilled for fuel, leaving a bale of high quality animal feed in the form of silage.

In the tests, the process yielded up to 12.4 kilograms of pure ethanol per bale, after six months of incubation – ten times more ethanol than would result from natural silage production. A steady amount of ethanol also continuously drained out in the effluent from the bale during the test, resulting in an additional 1.7 kilograms of ethanol that could be easily collected without extraction. The remaining bale material was found to be comparable to normal silage for animal feed, containing a similar amount of lactic acid and sugars, and high crude protein content – an essential dietary component for cattle.

Although the system requires a relatively long time for fermentation, no energy needs to be supplied into the system. The use of a vacuum distiller allowed the extraction of a total of 86 percent of the ethanol that accumulated in the bale. The ethanol also contained no insoluble particles, and could therefore be easily dehydrated and concentrated for use as automotive fuel. The research shows the potential for complementary food and biofuel production, circumventing issues related to land-use competition. The system could be deployed at a local level by individual farmers, providing sustainable biofuel production, and could be particularly beneficial to farmers in

the developing world.

www.ethanolproducer.com/articles/11885/process-could-enable-on-farm-biofuel-animal-feed-production

Researchers produce two biofuels from a single algae

According to the study published in the journal Energy & Fuels, a common algae commercially grown to make fish food holds promise as a source for both biodiesel and jet fuel.

The researchers, led by Greg O'Neil of Western Washington University and Chris Reddy of Woods Hole Oceanographic Institution, exploited an unusual and untapped class of chemical compounds in the algae to synthesize two different fuel products, in parallel, from a single algae.

www.phys.org/news/2015-01-biofuels-algae.html

Microalgae may provide gen-next biofuels

Scientists have sequenced the genome of a microalgae species and provided exciting hints at the roots of its ability to grow and produce oil at the same time. Biofuels made from plant-produced oils are an attractive alternative to fossil fuels. However, the enormous amount of arable land needed for production and the competition between their uses as food/feed and fuel present obstacles to the production of biofuels from crops. These considerations have led to focus on microalgae as oil producers, researchers said.

www.business-standard.com/article/pti-stories/microalgae-may-provide-gen-next-biofuels-115020300520_1.html

A closer look at the flawed studies behind policies used to promote 'low-carbon' biofuels

www.phys.org/news/2015-02-closer-flawed-policies-low-carbon-biofuels.html

Plant Glow and Carbon: ESA May Investigate Photosynthesis From Space

www.natureworldnews.com/articles/12512/20150204/plant-glow-carbon-esa-investigate-photosynthesis-space.htm

BPI announces startup of pilot plant featuring LTSD technology

Bio-Process Innovation Inc. has announced the completion of the construction of its 1-ton pilot plant and successful operation of its low temperature steep delignification (LTSD) pretreatment process at its pilot facility in Otterbein, Indiana. The LTSD process is a highly efficient process technology for the pretreatment of lignocellulosic biomass that allows for the effective conversion of biomass into 'pulp' (cellulose & reduced hemicellulose) and consequently, to fermentable sugars in the production of biobased fuels and chemicals through fermentation.

Unlike other pretreatment technologies, the LTSD process utilizes low inputs of non-toxic chemicals, oxygen and base, at mild reaction conditions to separate lignocellulosic biomass into its components; 1) lignin, 2) xylose, and 3) cellulosic pulp, and creates no toxic inhibitors.

The LTSD technology was developed by Bio-Process Innovation and has been tested and improved over the last 10 years. In laboratory and pilot trials, the LTSD process has been proven highly effective in the pretreatment of agricultural residues (corn stover and wheat straw), dedicated biomass (switch grass, miscanthus, etc.), and woody biomass (hard and soft woods, forestry residue, and pulp/paper waste), removing and recovering 90% of the lignin.

www.ethanolproducer.com/articles/11925/bpi-announces-startup-of-pilot-plant-featuring-ltsd-technology

UGA researchers develop super yeast that turns pine into ethanol

Researchers at the University of Georgia have developed a "super strain" of yeast that can efficiently ferment ethanol from pretreated pine, one of the most common species of trees in Georgia and the U.S. Their research could help biofuels replace gasoline as a transportation fuel.

www.ethanolproducer.com/articles/11918/uga-researchers-develop-super-yeast-that-turns-pine-into-ethanol

Tweaking Bacteria, Scientists turn sunlight into liquid fuel

www.news.nationalgeographic.com/news/energy/2015/02/150209-solar-energy-to-liquid-fuel/

Valicor announces patent for ethanol coproduct recovery process

Valicor Inc. has announced that it has completed the acquisition of a patent that covers the extraction of protein from corn ethanol stillage and is designed to help ethanol producers maximize their coproduct recovery and value.

The patent for invention number 7,829,680 is for a system and method that isolates gluten (protein) as a coproduct of the ethanol production. The protein product can be dried to produce a high-value, high-protein meal.

www.ethanolproducer.com/articles/11911/valicor-announces-patent-for-ethanol-coproduct-recovery-process

Scholarships bring 30 next-gen scientists to biodiesel show

In January, up-and-coming scientists joined the 900 biodiesel supporters attending the National Biodiesel Conference & Expo in Fort Worth, Texas. About 30 student members of the Next Generation Scientists for Biodiesel traveled to the event, many on scholarships through the National Biodiesel Board.

The NBB program is intended to foster professional relationships between budding and established scientists, share accurate information and increase collaboration with the biodiesel industry.

<http://www.biodieselmagazine.com/articles/313854/scholarships-bring-30-next-gen-scientists-to-biodiesel-show>

Kansas Ethanol to install ICM's Fiber separation technology

Kansas Ethanol LLC, of Lyons, Kansas, has signed an agreement for purchase, license to operate, and full-scale installation of ICM's patent-pending Fiber Separation Technology. FST is a value-added platform technology that removes fiber from a standard ethanol process, allowing increased ethanol and oil recovery yields, unlocking throughput and efficiency for each gallon of ethanol produced, and creating options for diversified co-products with high-protein feeds and fiber.

www.ethanolproducer.com/articles/11907/kansas-ethanol-to-install-icmundefined-fiber-separation-technology

Evolving corn coproducts: Utilizing fiber fraction

Utilization of fiber may indeed be the next big thing. Fiber is an effective dietary component in ruminant diets as they are nature's ready-made cellulosic processing factories. writes Kurt A. Rosentrater of Distillers Grains Technology Council.

www.ethanolproducer.com/articles/11889/evolving-corn-coproducts-utilizing-fiber-fraction

E15 could significantly reduce CO2 emissions in Minnesota

Making E15 (gasoline with 15 percent ethanol) the new regular unleaded fuel in Minnesota would eliminate 358,000 tons of CO2 annually, according to a technical analysis by the University of

Illinois at Chicago.

In response to a query by the Minnesota Bio-Fuels Association, Steffen Mueller, principal research economist at the University of Illinois at Chicago, said a gallon of E15 saves 1.26 g of CO₂ equivalent (CO₂e) per megajoule over regular E10 (gasoline that contains 10 percent ethanol). CO₂e includes carbon dioxide, nitrous oxide and methane.

www.ethanolproducer.com/articles/11942/e15-could-significantly-reduce-co2-emissions-in-minnesota

Valicor working with Purina, announces patent acquisition

Valicor Separation Technologies LLC and Purina Animal Nutrition LLC have signed a letter of intent to work together on developing a high protein coproduct market. This move compliments the company's Valicor Stillage Fractionation Technology, known as VFrac, as well as a recently acquired patent for protein extraction from corn ethanol stillage.

www.ethanolproducer.com/articles/11931/valicor-working-with-purina-announces-patent-acquisition

Forest Research, E.ON to lead ETI U.K. feedstock project

The Energy Technologies Institute has announced that Forest Research and E.ON will deliver the latest project in its bioenergy program, a study into the characterization of feedstocks.

The project will provide an understanding of U.K.-produced second generation biomass properties (derived from plants and generated through photosynthesis), how these vary and relate this variability to the origins of the samples tested. It will involve the sampling of several types of biomass from across the U.K. under various planting, growing, harvesting and storage conditions. The results will be analyzed to understand the scale of variation and what impacts different production and storage methods have on biomass properties.

Forest Research is one of the world's leading centers of research into woodlands and forestry and an executive agency of the Forestry Commission conducting world-class scientific research and technical development relevant to forestry to support and inform the policies for sustainable forest management. E.ON U.K. is part of the E.ON group – one of the world's largest investor-owned power and gas companies generating electricity and retailing power and gas.

www.biomassmagazine.com/articles/11560/forest-research-e-on-to-lead-eti-u-k-feedstock-project

Deinove strengthens its position in the United States

Deinove, a biotech company developing innovative processes for producing biofuels and bio-based chemicals by using Deinococcus bacteria as host strains, recently announced that its patent, "High-performance metabolic bacteria," has been granted in the United States. This patent covers the biofuel production process from cellulosic or hemicellulosic material—biomass components—by a consolidated bioprocess of degradation and fermentation based on Deinococcus bacteria.

This issuance is a recognition of the innovative nature of the Deinol process in a leading country and participates in the proactive policy of protecting its intellectual property worldwide. Since its inception, Deinove has submitted more than 180 international patent applications divided into 17 families, leading to a highly valuable strategic asset.

www.ethanolproducer.com/articles/11962/deinove-strengthens-its-position-in-the-united-states

Superior Oil granted corn oil extraction patent

Superior Oil, a national full line manufacturer and distributor of chemical and solvents, was awarded a U.S. patent for its innovative approach to extracting corn oil from the ethanol production processes. Superior's U.S. Patent No. 8,962,059 provides for improved techniques for

maximizing the extraction of corn oil during post-fermentation operations. This technology is an important advance for ethanol producers that will result in increased revenues from ethanol production operations.

www.ethanolproducer.com/articles/11970/superior-oil-granted-corn-oil-extraction-patent

Plant biomass can feed global chemical industry

Researchers from the University of Tokyo have developed a novel selective catalyst that allows the creation of several basic chemicals from biomass instead of petroleum. This discovery may lead to the use of plant biomass as a basic feedstock for the chemical industry.

Lignin is a major component of plant dry matter and has the potential to replace petroleum as the primary source of basic aromatic chemicals such as BTX (benzene, toluene and xylene) and phenol. "This study shows the potential of our catalysts for application to the mass use of lignin as feedstock for production of basic aromatic chemicals for the chemical industry, instead of using fossil fuels," explained lead researcher professor Kyoko Nozaki.

www.thehansindia.com/posts/index/2015-02-23/Plant-biomass-can-feed-global-chemical-industry-133356

Cultivation of microalgae via an innovative technology: ALGADISK project

Preliminary laboratory scale studies have shown consistent biomass production and weekly a thick microalgal biofilm could be harvested. A new and innovative harvesting device has been developed for ALGADISK able to directly harvest the dense biofilm with a dry matter of 150 gram per litre.

http://cordis.europa.eu/news/rcn/123196_en.html

Poor People Energy: Key message on energy for poverty alleviation

Practical Action, the international NGO produce an annual document, PPEO 2014 (Poor People Energy Outlook) on energy for the poor on the bases of sustainable development .This is a review of the 2014 document which conceded with the World Future Energy Summit (WFES) convened in Dhabi in 19-22 January, 2015.

<http://news.sudanvisiondaily.com/details.html?rsnpid=246633>