

March 2014



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##### **BIO ENERGY COUNCIL OF INDIA**

Tel: +91 79 66309332 Fax: +91 79 66309334

W: [www.bioenergyindia.org](http://www.bioenergyindia.org)

E: [info@bioenergyindia.org](mailto:info@bioenergyindia.org)



## Policy Initiatives

### India

#### Government to set up two firms to push renewables projects

The Government has decided to set up two Special Purpose Vehicles (SPVs), headed by ONGC and Indian Oil Corporation (IOC), to set up renewable projects.

[www.thehindubusinessline.com/economy/policy/govt-to-form-spvs-to-set-up-renewable-projects/article5726220.ece](http://www.thehindubusinessline.com/economy/policy/govt-to-form-spvs-to-set-up-renewable-projects/article5726220.ece)

### North America

#### Biomass associations praise the farm bill

The passage of the farm bill will positively impact the biomass industry and help to spur on additional development of RE, according to several leading biomass companies and organizations that praised the long-awaited bill.

The farm bill provides nearly \$900mn in dedicated funding for some of the nation's most critical energy and job-creation programs, including Rural Energy for America Program (REAP), Bioenergy Program for Advanced Biofuels, Biomass Crop Assistance Program (BCAP) and the Community Wood Energy Program (CWEP).

[www.agprofessional.com/news/Farm-bill-boosts-the-US-biomass-industry-244045141.html](http://www.agprofessional.com/news/Farm-bill-boosts-the-US-biomass-industry-244045141.html)

#### Senators Introduce Bill to Reinstate Biodiesel Tax Break

Senators Maria Cantwell, D-Wash., and Chuck Grassley, R-Iowa, have introduced bipartisan legislation to reinstate a tax incentive for the production of domestic biodiesel fuel.

[www.accountingtoday.com/news/Senators-Introduce-Bill-Reinstate-Biodiesel-Tax-Break-69614-1.html](http://www.accountingtoday.com/news/Senators-Introduce-Bill-Reinstate-Biodiesel-Tax-Break-69614-1.html)

### Africa

#### African nations to adopt biofuel models from State

Models or prototypes of biofuels developed six years ago by the Karnataka State Biofuel Development Board (KSBDB) are being adopted by certain African nations under a programme by the United Nations through the World Agroforestry Council (WAC).

The KSBDB and the WAC will soon sign a Memorandum of Understanding (MoU) in this regard. African nations will set up information and infrastructure development organisations, which will

have a capacity to generate 100 litres of biodiesel a day.

**[www.deccanherald.com/content/387342/african-nations-adopt-biofuel-models.html](http://www.deccanherald.com/content/387342/african-nations-adopt-biofuel-models.html)**

## Business & Market

### India

#### Mizoram delegation visits 3s India facility in Pune

A delegation led by Valbuanga- project Director, SIPMIU from the state government of Mizoram accompanied by two senior authorities from The Asian Development Bank (ADB) and senior engineers from the state department visited the facility of 3s India - an eco-friendly waste management solutions provider in Pune.

The purpose of the visit was to understand sanitation and waste management systems in order to adopt viable measures for their own requirements in Mizoram.

[www.timesofindia.indiatimes.com/city/pune/Mizoram-delegation-visits-3s-India-facility-in-Pune/articleshow/30230526.cms?referral=PM](http://www.timesofindia.indiatimes.com/city/pune/Mizoram-delegation-visits-3s-India-facility-in-Pune/articleshow/30230526.cms?referral=PM)

#### Aemetis commissions biodiesel distillation unit at India plant

Aemetis Inc. announced that its 50 MMgy biodiesel and refined glycerin production facility in Kakinada, India, has been upgraded to produce high-quality distilled biodiesel. The Aemetis plant was built in 2008 using advanced technology to produce biodiesel and refined glycerin using large volumes of lower-cost, nonfood byproducts from the edible oil industry as feedstock to supply the biofuel, pharmaceutical and industrial markets.

The new distillation production unit is fully commissioned and the India facility now produces biodiesel meeting or exceeding the highest standards for biodiesel quality worldwide.

[www.biodieselmagazine.com/articles/9540/aemetis-commissions-biodiesel-distillation-unit-at-india-plant](http://www.biodieselmagazine.com/articles/9540/aemetis-commissions-biodiesel-distillation-unit-at-india-plant)

#### Czech Republic, Punjab to explore energy, biomass tie ups

The Czech Republic's ambassador to India, Miloslav Stasek, called on Punjab industries Minister Madan Mohan Mittal and discussed various issues related to close cooperation in the sectors of renewable energy, biomass and water treatment.

[www.hindustantimes.com/punjab/chandigarh/czech-republic-punjab-to-explore-energy-biomass-tieups/article1-1188691.aspx](http://www.hindustantimes.com/punjab/chandigarh/czech-republic-punjab-to-explore-energy-biomass-tieups/article1-1188691.aspx)

#### New PMC chief to focus on waste management

Vikas Deshmukh, the newly appointed commissioner of the Pune Municipal Corporation (PMC), said that solid waste management would be the topmost priority of the administration during his tenure. According to Mr. Deshmukh, a long-term solution is needed for the city's garbage problem. The civic administration has identified five sites in different parts of the city, where such plants will be set up.

[www.timesofindia.indiatimes.com/city/pune/New-PMC-chief-to-focus-on-waste-management/articleshow/30252879.cms?referral=PM](http://www.timesofindia.indiatimes.com/city/pune/New-PMC-chief-to-focus-on-waste-management/articleshow/30252879.cms?referral=PM)

Tirupur Corporation administration launched SWM project  
[www.thehindu.com/news/cities/Coimbatore/major-waste-management-project-launched-in-30-wards-in-tirupur/article5651966.ece](http://www.thehindu.com/news/cities/Coimbatore/major-waste-management-project-launched-in-30-wards-in-tirupur/article5651966.ece)

10 MoUs involving Rs 2,600 crore investment signed at Punjab Agricultural Summit

The MoUs includes collaborations in agriculture, food processing and biomass-RE.  
[www.timesofindia.indiatimes.com/city/chandigarh/10-MoUs-involving-Rs-2600-crore-investment-signed/articleshow/30695718.cms](http://www.timesofindia.indiatimes.com/city/chandigarh/10-MoUs-involving-Rs-2600-crore-investment-signed/articleshow/30695718.cms)

## North America

Valmet and US based Zilkha biomass energy announce collaborative agreement

Zilkha Biomass Energy LLC and Valmet have signed a 5 year collaboration agreement in the field of steam exploded black pellets. The purpose of the agreement is to bring steam exploded black pellets to the market. These pellets are principally used for replacing fossil coal as the energy source in heat and power generation. The parties will work together to develop a joint global offering.

Steam exploded black pellets provide a number of benefits compared to traditional wood pellets. These include improved durability, water-resistance, higher energy content, lower shipping costs, and reduced dust problems compared to other types of bio-based pellets. Due to their properties, these black pellets can be handled in similar manner to fossil coal.

[www.marketwatch.com/story/valmet-and-us-based-zilkha-biomass-energy-announce-collaborative-agreement-2014-02-19?reflink=MW\\_news\\_stmp](http://www.marketwatch.com/story/valmet-and-us-based-zilkha-biomass-energy-announce-collaborative-agreement-2014-02-19?reflink=MW_news_stmp)

Green biodiesel company partners with Embry-Riddle

DoctorBioDiesel, a green fuel company based in the quad-city area, has partnered with faculty at Embry-Riddle Aeronautical University for the school's first "all-access" green technology project.

The company has sponsored the senior project research group, which will work to convert biodiesel to jet fuel and make the research available online to other students, professors and aeronautical companies.

[www.dcourier.com/main.asp?SectionID=1&SubSectionID=1&ArticleID=128759](http://www.dcourier.com/main.asp?SectionID=1&SubSectionID=1&ArticleID=128759)

REG enters petroleum distribution with REG Energy Services

REG will sell petroleum-based heating oil and diesel fuel, and enable the company to offer more biofuel blends.

[www.biodieselmagazine.com/articles/9550/reg-enters-petroleum-distribution-with-reg-energy-services](http://www.biodieselmagazine.com/articles/9550/reg-enters-petroleum-distribution-with-reg-energy-services)

Elevance awards EPC contract for Natchez biorefinery to URS

Under the contract, URS' scope of work involves converting Elevance's existing biodiesel plant into a new biorefinery.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7382](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7382)

## Marathon Petroleum Corp. to buy biodiesel plant in Cincinnati, Ohio

The plant has capacity to produce 60mn gallon per year.

[www.domesticfuel.com/2014/02/04/marathon-buying-ohio-biodiesel-plant/](http://www.domesticfuel.com/2014/02/04/marathon-buying-ohio-biodiesel-plant/)

## Thomas Biodiesel LLC to bring \$30mn biodiesel facility to Temple city

[www.bizjournals.com/austin/news/2014/02/21/biodiesel-manufacturer-to-bring-30m-plant-to.html](http://www.bizjournals.com/austin/news/2014/02/21/biodiesel-manufacturer-to-bring-30m-plant-to.html)

## Great Lakes Biodiesel earns BQ-9000 Producer status

Great Lakes Biodiesel Inc., the largest biodiesel producing plant in Canada, received BQ-9000 Producer status from the National Biodiesel Accreditation Commission. This designation is the highest level of industry recognized quality assurance.

[www.biodieselmagazine.com/articles/12082/great-lakes-biodiesel-earns-bq-9000-producer-status](http://www.biodieselmagazine.com/articles/12082/great-lakes-biodiesel-earns-bq-9000-producer-status)

## Constellation to design, build and operate a \$130mn RE plant in the US

Under the agreement, the 27MW power plant will be located at LA Sanitation's Hyperion treatment plant. Hyperion is among the 10 largest wastewater treatment facilities in the world. The facility will use digester gas, produced via Hyperion's sewage treatment process, as its primary fuel source. It will generate steam and electricity that will be used to operate the company's treatment operations.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7369](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7369)

## Synagro opens \$4.3mn composting plant to recycle organic waste in Florida

[www.waste-management-world.com/articles/2014/02/synagro-opens-4-3m-composting-plant-to-recycle-organic-waste-in-florida.html](http://www.waste-management-world.com/articles/2014/02/synagro-opens-4-3m-composting-plant-to-recycle-organic-waste-in-florida.html)

## C2Logix, WIH Resource Group partner in waste management services

c2logix, Inc, a provider of route optimization software, and WIH Resource Group, a global provider of comprehensive waste management, recycling and business systems, announced a partnership that will provide waste management companies with a single platform.

[www.ccjdigital.com/c2logix-wih-resource-group-partner-in-waste-management-services/](http://www.ccjdigital.com/c2logix-wih-resource-group-partner-in-waste-management-services/)

### Europe

## Two bioenergy companies merge for wood pellet JV

Nordic energy firm Lantmännen and Scandinavian bioenergy company Neova will combine their respective wood pellet businesses to create a new company that will include Neova's wood pellet business in Sweden and the corresponding Lantmännen Agroenergy businesses in Sweden and Latvia.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7389](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7389)

## Russia-based GS Group to build a new wood pellet plant in Pskov

The production facility will have an annual capacity of 90,000 tonnes when it comes online towards the end of this year.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7388](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7388)

## AREVA delivers biopower plant to Eneco

Located in Delfzijl in the North of the Netherlands, this biomass plant has an installed capacity of 49.9 MW and is fuelled by waste wood from domestic and industry activities. The installation will supply electricity to over 120,000 households and avoid nearly 250,000 tons of CO<sub>2</sub> emissions annually.

[www.online.wsj.com/article/PR-CO-20140203-902339.html](http://www.online.wsj.com/article/PR-CO-20140203-902339.html)

## A BID to build 32MW biopower plant in Chirk

[www.newsnorthwales.co.uk/news/130666/biomass-plant-in-chirk-will-save-600-jobs.aspx](http://www.newsnorthwales.co.uk/news/130666/biomass-plant-in-chirk-will-save-600-jobs.aspx)

## 50MW Dutch bioenergy plant commences operations in the Northern region of the Netherlands

The plant has capacity to process 300,000 metric tons of waste wood each year as feedstock. The company also estimated that the plant will reduce CO<sub>2</sub> emissions by 250,000 tons per year.

[www.biomassmagazine.com/articles/10003/50-mw-dutch-bioenergy-plant-commences-operations](http://www.biomassmagazine.com/articles/10003/50-mw-dutch-bioenergy-plant-commences-operations)

## BDI completes retrofit of 10 MMgy biodiesel plant in Greece

[www.biodieselmagazine.com/articles/9537/bdi-completes-retrofit-of-10-mmgy-biodiesel-plant-in-greece](http://www.biodieselmagazine.com/articles/9537/bdi-completes-retrofit-of-10-mmgy-biodiesel-plant-in-greece)

## Biorefinery plans aim to make algae biofuel profitable

An international team led by Greenwich University has received €10mn from the EU to build a "D-Factory" that would convert the bright orange microalgae *Dunaliella* into a range of food, pharmaceuticals, plastics and fuels. The scientists hope that using a combination of technologies to make a variety of products from algae will make its use as a renewable fuel source more economic, as only up to 80% of its mass can currently be used for fuel.

[www.theengineer.co.uk/biorefinery-plans-aim-to-make-algae-biofuel-profitable/1018023.article](http://www.theengineer.co.uk/biorefinery-plans-aim-to-make-algae-biofuel-profitable/1018023.article)

## Ireland has the potential for leading biofuel revolution

[www.siliconrepublic.com/clean-tech/item/35698-ireland-has-the-potential-f/](http://www.siliconrepublic.com/clean-tech/item/35698-ireland-has-the-potential-f/)

## Arla Foods to slash emissions with bio-LNG fleet

Arla Foods is set to become the UK's first zero carbon dairy after opening a bio-based Liquefied Natural Gas (bio-LNG) filling station at its £150mn site in Aylesbury, UK. The bio-LNG will be used to fuel Arla's fleet of trucks.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7422](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7422)

## [Glenfiddich to build biogas plant](#)

Whisky producer Glenfiddich has received planning permission from local councillors to build an Anaerobic Digestion (AD) plant at its distillery in Dufftown, Scotland. The AD facility will turn waste products generated from the company's distilling process into biogas. This biogas will either be cleaned and injected into the national gas network, or converted into 3.5MW of electricity and sold to the national grid.

The AD plant would also generate heat and steam, while waste materials left in the digester can be sold as animal feed and/or fertiliser.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7393](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7393)

## [Weltec to open UK-based biomass plants in Londonderry and Leicester](#)

The Londonderry project is a 500kW AD plant for industrial meat processing company Foyle Food Group. This plant will handle waste from the company's abattoirs in the vicinity, including stomach contents and flotation fat. While in Leicester, a 500kW agricultural biogas plant will use a conventional mix of renewable raw materials.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7368](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7368)

## [EBRD to finance €14mn to Georgian waste management project](#)

The European Bank for Reconstruction and Development (EBRD) will allocate some €14mn for work on solid waste management in Kvemo Kartli.

[www.en.trend.az/capital/business/2242160.html](http://www.en.trend.az/capital/business/2242160.html)

## [Scotland launches £3.8mn recycling fund to help businesses develop green infrastructure](#)

[www.letsrecycle.com/news/latest-news/business/scotland-launches-ps3.8m-recycling-fund](http://www.letsrecycle.com/news/latest-news/business/scotland-launches-ps3.8m-recycling-fund)

### Africa

## [Bamburi Cement - Mombasa County Government to develop US\\$55.7mn SWM plant](#)

[www.cemnet.com/News/story/153910/bamburi-signs-waste-management-partnership-deal.html](http://www.cemnet.com/News/story/153910/bamburi-signs-waste-management-partnership-deal.html)

### Other Countries

## [Devotion Thermal Tech to set up USD 50mn biopower plant in Nepal](#)

[www.menafn.com/05442cbe-9264-4f10-b94b-0ca475aa1ecb/Devotion-Thermal-Tech-to-Set-up-Biomass-Power-Plant-in-Nepal?src=main](http://www.menafn.com/05442cbe-9264-4f10-b94b-0ca475aa1ecb/Devotion-Thermal-Tech-to-Set-up-Biomass-Power-Plant-in-Nepal?src=main)

## [Emerging Power Inc. - local Government in Misamis to develop biomass plant in Cagayan de Oro](#)

[www.bworldonline.com/content.php?section=Corporate&title=Cagayan-de-Oro-biomass-facility-planned&id=83759](http://www.bworldonline.com/content.php?section=Corporate&title=Cagayan-de-Oro-biomass-facility-planned&id=83759)

## Sinopec aviation biofuel awarded with airworthiness certificate

The Civil Aviation Administration of China has awarded Sinopec with the approval certificate for the No.1 aviation biofuel, which means that the Chinese made No.1 aviation biofuel has been approved for commercial use. China has become one of the few countries to master the research and development of aviation biofuel production technologies.

[www.english.peopledaily.com.cn/98649/8535584.html](http://www.english.peopledaily.com.cn/98649/8535584.html)

## Finance & Investment

### India

#### 10 MoUs involving Rs 2,600 crore investment signed

On the occasion of Punjab Agricultural Summit at Chappar Chiri, the Punjab Government has claimed to have firmed up investments worth Rs 2,600 crore with 10 MoUs signed for collaborations in agriculture, food processing and bio-mass RE.

[www.timesofindia.indiatimes.com/city/chandigarh/10-MoUs-involving-Rs-2600-crore-investment-signed/articleshow/30695718.cms](http://www.timesofindia.indiatimes.com/city/chandigarh/10-MoUs-involving-Rs-2600-crore-investment-signed/articleshow/30695718.cms)

### North America

#### Funding for carbon fibre from biomass projects

The US Energy Department has funded up to \$12mn to advance the production of cost-competitive, high-performance carbon fibre from renewable non-food-based feedstocks such as agricultural residues and woody biomass.

The funding will support DoE's Clean Energy Manufacturing Initiative that aims to ensure US manufacturers remain competitive in the global marketplace.

#### Monsanto high school gets \$100,000 grant to build biodiesel center

[www.biodieselmagazine.com/articles/13405/mo-high-school-gets-100-000-grant-to-build-biodiesel-center](http://www.biodieselmagazine.com/articles/13405/mo-high-school-gets-100-000-grant-to-build-biodiesel-center)

#### Crimson Renewable Energy LP. receives biodiesel grant

A Colorado-based biodiesel maker has received \$5mn in grant from the State of California to expand its biorefinery in that state.

[www.domesticfuel.com/2014/02/07/crimson-renewable-gets-5-mil-biodiesel-grant/](http://www.domesticfuel.com/2014/02/07/crimson-renewable-gets-5-mil-biodiesel-grant/)

#### ClearCove Systems wins NYSERDA funding for biogas project

ClearCove Systems Inc. of Rochester receives funding of \$300,000 from the New York State Energy Research and Development Authority to demonstrate a new wastewater treatment system that is expected to save energy while reducing treatment costs.

The technology will also produce a carbon-rich byproduct that can be used as a superior fuel for generating biogas through anaerobic digestion.

[www.biomassmagazine.com/articles/10018/clearcove-systems-wins-nyserda-funding-for-biogas-project](http://www.biomassmagazine.com/articles/10018/clearcove-systems-wins-nyserda-funding-for-biogas-project)

## Archer Daniels Midland (ADM) invests \$25mn in Rennovia

The money would help Rennovia to develop catalysts and processes for the production of renewable feedstock-based chemical products.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7410](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7410)

## NY Green Bank open and seeking financial proposals

The New York Green Bank has started operations and will work to stimulate private sector financing to accelerate the transitions to a more cost-effective, resilient and clean energy system.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7418](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7418)

## New York State Energy Research and Development Authority grants \$3mn to develop wood fired heating equipments

The grant was a part of Renewable Heat NY Program which is given to

- University at Buffalo Research Foundation which is working with Econoburn (Brocton) to develop a commercial two-stage wood hydronic heater with improved combustion chamber design and added sensors and controls to improve efficiency and lower emissions.
- Hydronic Specialty Supply of Cassadaga which will develop 'Made-in-NY' residential and commercial firewood gasification boilers that can maintain high efficiency and low emissions due to an innovative staged-combustion design with smart sensors and controls for optimizing performance.
- Advanced Wood Combustion Technologies LLC of East Aurora

[www.bizjournals.com/buffalo/blog/morning\\_roundup/2014/02/3-area-projects-named-for-renewable.html](http://www.bizjournals.com/buffalo/blog/morning_roundup/2014/02/3-area-projects-named-for-renewable.html)

### Europe

## Fortum invests in €260mn biopower plant in Finland

The plant will have a capacity to generate 14MW of power and 244MW of heat.

[www.bloomberg.com/news/2014-02-12/fortum-invests-in-260-million-euro-biomass-plant-in-finland.html](http://www.bloomberg.com/news/2014-02-12/fortum-invests-in-260-million-euro-biomass-plant-in-finland.html)

## University of York wins funding to develop biobased polymers

Scientists at the University of York are to lead a new government-backed research project to investigate the potential conversion of waste biomass and waste CO<sub>2</sub> into safer and more sustainable raw materials.

The Engineering and Physical Sciences Research Council has awarded the University's Green Chemistry Centre of Excellence £3mn to develop industrially viable routes to replacements for petrochemically derived polymers using waste biomass, such as orange peel, pine needles and sawdust.

[www.biomassmagazine.com/articles/10036/university-of-york-wins-funding-to-develop-biobased-polymers](http://www.biomassmagazine.com/articles/10036/university-of-york-wins-funding-to-develop-biobased-polymers)

## Welsh Government awards €1mn to the Wales Centre of Excellence for Anaerobic Digestion and biogas project

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7367](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7367)

## Scotland's first gas-to-grid AD plant receives financing

Iona Capital, together with Scotia Gas Networks (SGN), has invested in Keithick Biogas for the development of a gas-to-grid anaerobic digestion (AD) plant in Scotland.

The project, which will be the first of its kind in Scotland, is expected to commence operations later this year. The facility will process over 36,000 tonnes a year of whole crop rye, maize, sugar beet waste, raw silage and chicken litter sources from local businesses. This will generate over 3mn m<sup>3</sup> of biomethane for the local gas grid, in addition to a biofertiliser.

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=7420](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=7420)

### Other Countries

## \$500mn earmarked for energy projects

BRONZEOAK Philippines, Inc. has earmarked over \$500 million to develop RE projects in Negros Occidental with combined capacity of 125MW.

[www.bworldonline.com/content.php?section=Corporate&title=\\$500M-earmarked-for-energy-projects&id=83195](http://www.bworldonline.com/content.php?section=Corporate&title=$500M-earmarked-for-energy-projects&id=83195)

## Research & Development

### North America

#### BioNitrogen completes biomass feasibility study for Florida

BioNitrogen Holdings Corp., a cleantech company that utilizes patented technology to build environmentally-friendly plants that convert biomass into urea fertilizer, announced that it has received the feasibility study for biomass feedstock supply to the initial BioNitrogen plant in Florida from BioResource Management, Inc.

"This biomass feasibility study estimates a significant annual savings to the plant for our feedstock supply cost," said Bryan Kornegay, Jr., President and CFO. "We will now be able to receive more than two times our plant needs in the haul zone at a much lower price than originally forecasted." [www.agprofessional.com/news/BioNitrogen-completes-biomass-feasibility-study-for-Florida--245381931.html](http://www.agprofessional.com/news/BioNitrogen-completes-biomass-feasibility-study-for-Florida--245381931.html)

#### Researchers create new method for producing biogasoline

Researchers at UC Davis have created a new process for "biogasoline." The procedure effectively converts cellulosic and biomass materials — including waste from cities, farms and forests — into potential gasoline substances.

According to Professor Mark Mascal, most biomass-derived hydrocarbons are linear chain molecules, [related] to diesel and jet fuel, but not to gasoline, which requires branched molecules, where the developed method produces hydrocarbons that have this branched carbon chain, making the fuel available for gas-powered cars. [www.theaggie.org/2014/02/20/researchers-create-new-method-for-producing-biogasoline/](http://www.theaggie.org/2014/02/20/researchers-create-new-method-for-producing-biogasoline/)

#### New technology developed by University of California

The process developed by chemists at the University of California, Davis makes gasoline-like fuels from cellulosic materials such as farm and forestry waste using a new process. [www.articles.economictimes.indiatimes.com/2014-02-04/news/47004962\\_1\\_plant-waste-fuels-new-technology](http://www.articles.economictimes.indiatimes.com/2014-02-04/news/47004962_1_plant-waste-fuels-new-technology)

#### MSU advances algae's viability as a biofuel

A team of Michigan State University scientists has invented a new technology that increases the odds of helping algae-based biofuels. [www.msutoday.msu.edu/news/2014/msu-advances-algaes-viability-as-a-biofuel/](http://www.msutoday.msu.edu/news/2014/msu-advances-algaes-viability-as-a-biofuel/)

## Duckweed genes left exposed for future biofuel research: Rutgers University researchers

[www.biomassmagazine.com/articles/10054/duckweed-genes-left-exposed-for-future-biofuel-research/](http://www.biomassmagazine.com/articles/10054/duckweed-genes-left-exposed-for-future-biofuel-research/)

## Scientists at Georgia develop fuel cell

Scientists at Georgia Tech have developed a fuel cell, when a cell is exposed to sunlight, the catalyst starts to break down the biomass, creating energy that is then transferred into electricity.

[www.techpageone.dell.com/environment/new-fuel-cells-hold-promise-poor-countries/#.UzvsuqjWK2F](http://www.techpageone.dell.com/environment/new-fuel-cells-hold-promise-poor-countries/#.UzvsuqjWK2F)

### Europe

## Dutch power plant successfully tests torrefied biomass pellets

A consortium consisting of Topell Energy, three electricity companies, including Essent, Nuon and GDF SUEZ, and ECN has successfully completed a large-scale cofiring test with an innovative renewable energy source at the Amer power plant in Geertruidenberg, Netherlands. With the test, the consortium proves an innovative technology to produce renewable energy with "biopellets" from biomass.

[www.biomassmagazine.com/articles/10027/dutch-power-plant-successfully-tests-torrefied-biomass-pellets](http://www.biomassmagazine.com/articles/10027/dutch-power-plant-successfully-tests-torrefied-biomass-pellets)

## New study finds ocean biomass in excess of 10 trillion tons : Research conducted by Spanish National Research Council

[www.examiner.com/article/new-study-finds-ocean-biomass-excess-of-10-trillion-tons](http://www.examiner.com/article/new-study-finds-ocean-biomass-excess-of-10-trillion-tons)

## UK researchers developing new EfW technologies to commercial scale

An EU-funded institute is focusing on turning innovative Energy-from-Waste (EfW) technologies into full-scale, commercially functioning operations.

[www.mrw.co.uk/news/uk-researchers-develop-market-potential-of-efw-technologies/8658829.article?blocktitle=Latest-news&contentID=2186](http://www.mrw.co.uk/news/uk-researchers-develop-market-potential-of-efw-technologies/8658829.article?blocktitle=Latest-news&contentID=2186)

## UK Researchers study algae-to-biodiesel and more

Researchers in the United Kingdom are looking at turning a particular strain of algae into biodiesel and more. As per the released news by the University of Greenwich, the school is leading a nearly \$14 million international project to get products from the bright pink-orange microalgae *Dunaliella* found in salt lakes and coastal waters. The project will build a biorefinery called the 'D-Factory' which is going to turn every part of the algae into something useful.

[www.domesticfuel.com/2014/02/20/uk-researchers-study-algae-to-biodiesel-and-more/](http://www.domesticfuel.com/2014/02/20/uk-researchers-study-algae-to-biodiesel-and-more/)

### Africa

## Company to produce biogas from waste shea butter

Sekaf Ghana Limited, an indigenous producer of TAMA natural cosmetics, is to build a facility to convert waste bi-products of shea butter into natural gas. It will use the natural gas as substitute for fuel wood to process shea butter into natural cosmetics. The gas will also be used to produce fertilizer to serve the local agricultural industry.

**[www.ghana.gov.gh/index.php/2012-02-08-08-32-47/general-news/4677-company-to-produce-biogas-from-waste-shea-butter](http://www.ghana.gov.gh/index.php/2012-02-08-08-32-47/general-news/4677-company-to-produce-biogas-from-waste-shea-butter)**

# Climate & Environment Change

## India

### India sets up \$100mn Himalaya ecosystem mission

India signed off on a crucial measure towards securing the future of the world's most famous mountain range, the Himalayas.

The Indian Cabinet approved the outlay plan for India's National Mission for Sustaining the Himalayan Ecosystem (NMSHE) with a budget outlay of \$100 million. The project would be monitored under India's National Action Plan on Climate Change (NAPCC) which was launched in 2008. India's Himalaya project aims to develop "a sustainable national capacity to continuously assess the health status of the Himalayan Ecosystem", said an official statement.

The mountain project will also study glaciers and associated hydrological consequences in the Himalayas, while predicting natural hazards. The fund would also be used to study biodiversity and wild life conservation, traditional knowledge societies and their livelihood.

[www.thebricspost.com/indian-sets-up-100-mn-himalaya-ecosystem-mission/#.Uz0DyqiSxpx](http://www.thebricspost.com/indian-sets-up-100-mn-himalaya-ecosystem-mission/#.Uz0DyqiSxpx)

## Europe

### UN told to take climate change seriously

The President of Nauru has welcomed the United Nations' renewed focus on the world's small island states yet warned that without urgent international action on climate change, "entire languages, cultures and histories" will be lost to rising sea levels.

[www.voxy.co.nz/national/un-told-take-climate-change-seriously/5/183057](http://www.voxy.co.nz/national/un-told-take-climate-change-seriously/5/183057)

### Global warming to cost \$2tn: UN report

The report, published by Japanese newspaper the Yomiuri Shimbun, showed that the world's crop production will drop by 2% every decade, causing USD1.45 trillion of economic damage by the end of this century.

If global temperatures rise by 2.5 degrees due to rainfall pattern shifts and droughts, the world's Gross Domestic Product (GDP) will then fall by 0.2% to 2%, the report added. It also warned that global warming could lead to rising sea levels, forcing millions of people to migrate from coastal areas, mostly in East, South and Southeast Asia.

[www.presstv.ir/detail/2014/02/28/352619/global-warming-to-cost-2tn-un/](http://www.presstv.ir/detail/2014/02/28/352619/global-warming-to-cost-2tn-un/)