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BIO-ENERGY COUNCIL OF INDIA

704-Shitiratna, Panchwati, Ellisbridge

Ahmedabad - 380006, India.

Tel : +91 79 66309332 Fax : +91 79 6630 9334

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

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

Supported by

**Abellon CleanEnergy**

W : [www.abelloncleanenergy.com](http://www.abelloncleanenergy.com)

E : [abellon@abelloncleanenergy.com](mailto:abellon@abelloncleanenergy.com)



*Dear Readers,*

*At BECI, we are delighted to see that decision makers across the world have realized the potential of bioenergy and are increasingly strengthening their focus on this sector. In India too, this focus is visible in the recent news about MNRE planning to generate 10000MW of energy from biomass by 2011.*

*On one side, a high level of research and development is in process for extraction of energy in the form of liquid biofuels, and on the other side biomass is gaining popularity as a source of energy generation through direct combustion. Many existing thermal power plants have started using biomass as fuel and many new power plants are coming up with biomass as base fuel source, whereas scientists across the world are working on finding a new technology for efficient production of biofuels. What is needed now is a dedicated and combined effort to accelerate the process.*

*On our part, BECI is fully committed to supporting initiatives in this sector and partnering with different stakeholders to create a favorable and sustainable environment for bio-energy.*

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<http://www.bioenergyindia.org/frmsendnewsfeedback.aspx>*

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# Policy Initiatives

## India

### India can generate 89,000MW power through clean energy:Lok Sabha

[www.ibnlive.in.com/generalnewsfeed/news/potential-to-generate-89000-mw-power-through-clean-energy/606496.html](http://www.ibnlive.in.com/generalnewsfeed/news/potential-to-generate-89000-mw-power-through-clean-energy/606496.html)

### MNRE plans to generate 10,000MW power from biomass by 2021

[www.business-standard.com/india/news/govt-eyes-10000-mw-power-generationbiomass/129845/on](http://www.business-standard.com/india/news/govt-eyes-10000-mw-power-generationbiomass/129845/on)

According to the MNRE Secretary, the rising demand for energy, depletion of fossil fuels and increasing import of coal makes it necessary to look at dedicated plantation-based biopower and energy as an alternative source. They are also planning for small megawatt biopower plants which would ensure power to many villages. MNRE has proposed to bring together stakeholders to formulate a strategy for providing sustainable and reliable energy solution.

### Calangute Gram Sabha approves Rs 75-lakh garbage treatment plant

[articles.timesofindia.indiatimes.com/2011-03-14/goa/28687511\\_1\\_biogas-garbage-treatment-plant-calangute-gram-sabha](http://articles.timesofindia.indiatimes.com/2011-03-14/goa/28687511_1_biogas-garbage-treatment-plant-calangute-gram-sabha)

The 5 tons/day biogas plant would treat waste from hotels, canteens, kitchens, vegetable and fruit markets and night soil to generate 2000 litres of bio-manure per day.

### UNDP and Western Regional Hospital initiate hospital waste management project

[www.thehimalayantimes.com/fullNews.php?headline=UNDP%26sbq%20uo%3B+WRH+initiate+hospital+waste+management+project&NewsID=281820](http://www.thehimalayantimes.com/fullNews.php?headline=UNDP%26sbq%20uo%3B+WRH+initiate+hospital+waste+management+project&NewsID=281820)

### PSU Nalco to set up pilot project on carbon sequestration at Angul's power plant

[www.orissadiary.com/ShowBusinessNews.asp?id=25424](http://www.orissadiary.com/ShowBusinessNews.asp?id=25424)

### Finance Minister announces Rs.600crore for protection and regeneration of forests, environmental management

[http://articles.economictimes.indiatimes.com/2011-02-28/news/28642463\\_1\\_national-action-plan-climate-change-forests](http://articles.economictimes.indiatimes.com/2011-02-28/news/28642463_1_national-action-plan-climate-change-forests)

### PM Council approves Rs 46,000 crore Green India Mission

[www.indianexpress.com/news/PM-panel-gives-nod-to-Green-India-Mission/753961/](http://www.indianexpress.com/news/PM-panel-gives-nod-to-Green-India-Mission/753961/)

*The mission will improve the quality of forest cover over another 5mn hectares of land, ecosystem services, hydrological services and carbon sequestration.*

### India's science received 14 % boost in 2011–12 budget, but RE and agriculture research saw cuts of 24% and 6% respectively

[www.environmental-expert.com/resultEachPressRelease.aspx?cid=33596&codi=227077](http://www.environmental-expert.com/resultEachPressRelease.aspx?cid=33596&codi=227077)

### Zimbabwe and India to sign bilateral cooperation agreement in RE

[www.ae-africa.com/read\\_article.php?NID=2770](http://www.ae-africa.com/read_article.php?NID=2770)

### Finance Minister unveils green rebates to promote green technologies

[www.hindustantimes.com/Mukherjee-unveils-green-rebates/Article1-667872.aspx](http://www.hindustantimes.com/Mukherjee-unveils-green-rebates/Article1-667872.aspx)

### Confederation of Indian Industry launches City Connect in Pune

[www.dnaindia.com/mumbai/report\\_cii-launches-city-connect-in-pune\\_1520585](http://www.dnaindia.com/mumbai/report_cii-launches-city-connect-in-pune_1520585)

City Connect is the industry body's initiative to improve city's infrastructure through sustainable development.

### RE sector receives Rs 253crore for R&D from MNRE

[www.thehindubusinessline.com/industry-and-economy/economy/article1523139.ece](http://www.thehindubusinessline.com/industry-and-economy/economy/article1523139.ece)

## Policy Initiatives

### Climate change may result in foodgrain demand-supply gap

[www.business-standard.com/india/news/climate-change-may-result-in-foodgrain-demand-supply-gap/428092/](http://www.business-standard.com/india/news/climate-change-may-result-in-foodgrain-demand-supply-gap/428092/)

According to the Ministry of Agriculture, India's annual foodgrain production could fall short of demand by 20mn tonnes by 2021, if urgent measures are not taken to minimise the impact of climate change. To reduce the impact, the Ministry has sought Rs 1,08,000 crore in the form of additional budgetary support till 2016-2017 for various initiatives.

### North America

#### Alberta to invest \$58mn in 2011-12 to support bioenergy production

[www.edmontonjournal.com/technology/Alberta+extends+bioenergy/4518584/story.html](http://www.edmontonjournal.com/technology/Alberta+extends+bioenergy/4518584/story.html)

#### DoE grants \$20.5mn to Logos and EdeniQ for corn-to-cellulosic pilot biorefinery

[www.money.msn.com/business-news/article.aspx?feed=PR&Date=20110323&ID=13204070](http://www.money.msn.com/business-news/article.aspx?feed=PR&Date=20110323&ID=13204070)

#### USDA to provide \$573mn in bioenergy

[www.biofuelsdigest.com/bdigest/2011/03/15/usda-announces-573-million-in-bioenergy-funding-opportunities/](http://www.biofuelsdigest.com/bdigest/2011/03/15/usda-announces-573-million-in-bioenergy-funding-opportunities/)

### Department for Energy and Climate Change launches a website

[www.techeye.net/internet/department-for-energy-and-climate-change-dev-team-cagey-over-cost](http://www.techeye.net/internet/department-for-energy-and-climate-change-dev-team-cagey-over-cost)

The website will allow users to create their own sustainable energy plan to reach emissions targets by 2050.

### Constellations sign contract with US Government to reduce GHG emission upto 35% by 2013

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/constellation-signs-first-green-energy-savings-agreement-with-us-government.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/constellation-signs-first-green-energy-savings-agreement-with-us-government.html)

### USDA invests \$60mn in research on crops and climate change

[www.forbes.com/feeds/ap/2011/03/21/general-us-food-and-farm-climate-research\\_8366294.html](http://www.forbes.com/feeds/ap/2011/03/21/general-us-food-and-farm-climate-research_8366294.html)

### Europe

#### Metso to supply biopower plant for Municipality of Launkalne in Latvia

[www.controlengeneurope.com/article/40818/Biomass-power-plant-for-SIA-Graanul-Invest.aspx](http://www.controlengeneurope.com/article/40818/Biomass-power-plant-for-SIA-Graanul-Invest.aspx)

The plant will utilise Bubbling Fluidized Bed (BFB) technology and will use bark, wood chips or milled peat as a fuel. The plant will produce 15MW of heat and 6.4MW of electricity.

### Ministers to create a framework to support RE production through the Renewable Heat Incentive (RHI)

[www.guttridge.co.uk/news/2011/03/11/ministers-strengthen-support-for-biomass-and-other-green-energy-production/](http://www.guttridge.co.uk/news/2011/03/11/ministers-strengthen-support-for-biomass-and-other-green-energy-production/)

RHI will provide long-term tariff support for non-domestic sectors, which contribute 38% of the UK's carbon emissions and it will also will increase green capital investment by £4.5bn up to 2020.

### Turkish Municipality develops biopower project

[www.feeds.bignewsnetwork.com/?rid=43527319&cat=53023059fadd9a63](http://www.feeds.bignewsnetwork.com/?rid=43527319&cat=53023059fadd9a63)

The project will produce 2mn kWh of electricity per year, which is enough to supply 600 households.

### Tunisia and France sign agreement to develop, produce and export biopower to European markets

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/tunisia-france-agree-to-cooperate-on-renewables.htm](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/tunisia-france-agree-to-cooperate-on-renewables.htm)

## Policy Initiatives - GLOBAL

**Viridor Oxfordshire Ltd. and Oxfordshire County Council sign contract for £205mn for residual waste treatment project at Ardley**  
[www.waste-management-world.com/index/from-the-wires/wire-news-display/1376952574.html](http://www.waste-management-world.com/index/from-the-wires/wire-news-display/1376952574.html)

**Italian Government to renew incentives for RE production**

[www.af.reuters.com/article/energyOilNews/idAFLDE7201Z920110301](http://www.af.reuters.com/article/energyOilNews/idAFLDE7201Z920110301)

**UK to increase RE budget to £3.2bn by 2014**

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/uk-to-inject-3-6bn-in-renewables-by-2014.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/uk-to-inject-3-6bn-in-renewables-by-2014.html)

### New carbon credit trading platform

[www.lowcarboneyconomy.com/profile/anaerobic\\_digestion\\_and\\_biogas\\_assoc/\\_news\\_and\\_press\\_releases/new\\_carbon\\_credit\\_trading\\_platform/13308](http://www.lowcarboneyconomy.com/profile/anaerobic_digestion_and_biogas_assoc/_news_and_press_releases/new_carbon_credit_trading_platform/13308)

ADBA, the trade association for the anaerobic digestion (AD) and biogas industry has proposed to create a biomethane based carbon credit trading platform which can also serve as a green gas certification scheme, to support the development of the AD industry.

### Europe sets target to reduce power intensity by 20% before 2023

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/ebdr-strengthens-support-of-turkey%e2%80%99s-energy-efficiency-efforts.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/ebdr-strengthens-support-of-turkey%e2%80%99s-energy-efficiency-efforts.html)

### EBRD strengthens support of Turkey's energy efficiency efforts

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/ebdr-strengthens-support-of-turkey%e2%80%99s-energy-efficiency-efforts.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/ebdr-strengthens-support-of-turkey%e2%80%99s-energy-efficiency-efforts.html)

The European Bank for Reconstruction and Development (EBRD) will launch the Sustainable Energy Action Plan to increase use of RE. Turkey has enhanced its activities through the €200mn Sustainable Energy Financing Facility and the €700mn mid-size Sustainable Energy Financing Facility launched in 2010 by the EBRD.

## Africa

### South Africa sets RE target to 10,000GWh by 2013

[www.af.reuters.com/article/topNews/idAFJ0E72S08020110329](http://www.af.reuters.com/article/topNews/idAFJ0E72S08020110329)

## Other Countries

**Bee'ah and Sharjah Municipality sign an agreement to enhance environmental change**

[www.ameinfo.com/258892.html](http://www.ameinfo.com/258892.html)

### Energy-saving and emission-reduction policy in China

[www.sbwire.com/press-releases/sbwire-83142.htm](http://www.sbwire.com/press-releases/sbwire-83142.htm)

The act will help to create commercial opportunity for the domestic bio-energy industry for 2011-2015.

## India

### Clenergen to commence 27MW/h co-gen power plant in India

[www.live-pr.com/en/clenergen-to-commence-generation-of-r1048778601.htm](http://www.live-pr.com/en/clenergen-to-commence-generation-of-r1048778601.htm)

### SG Biofuels expands into India

[www.pnewsire.com/news-releases/sg-biofuels-expands-into-india-names-subhas-pattnaik-as-director-of-operations-117509273.html](http://www.pnewsire.com/news-releases/sg-biofuels-expands-into-india-names-subhas-pattnaik-as-director-of-operations-117509273.html)

The company will use biotechnology to develop elite hybrid seeds of Jatropha.

### Cerebra Integrated Technologies to build largest 10 acre e-waste recycling facility in Bangalore

[www.efytimes.com/e1/60004/fullnews.htm](http://www.efytimes.com/e1/60004/fullnews.htm)

### Firefly Energy India to build Rs 125 crore carbon foam battery unit in Gujarat

[http://articles.economicstimes.indiatimes.com/2011-03-07/news/28665867\\_1\\_acid-battery-plant-discharge-cycles-battery-industry](http://articles.economicstimes.indiatimes.com/2011-03-07/news/28665867_1_acid-battery-plant-discharge-cycles-battery-industry)

### NTPC to set up 1000MW capacity by 2017 using RE sources

[www.steelguru.com/indian\\_news/Renewable\\_Energy\\_Projects\\_by\\_NTPC/194904.html](http://www.steelguru.com/indian_news/Renewable_Energy_Projects_by_NTPC/194904.html)

NTPC has made a provision for investment of Rs 480 crores in 2010-11 for developing RE projects.

### Hong Kong's CLP to expand RE capacity to 2000MW by investing \$265mn in clean energy sector in India

[www.bloomberg.com/news/2011-03-11/hong-kong-s-clp-to-triple-renewable-energy-capacity-in-india-in-3-years.html](http://www.bloomberg.com/news/2011-03-11/hong-kong-s-clp-to-triple-renewable-energy-capacity-in-india-in-3-years.html)

### Torrent Power to buy RE to meet Government-set target for clean power

[www.bloomberg.com/news/2011-03-30/torrent-power-of-india-seeks-to-buy-renewable-energy-to-meet-obligation.html](http://www.bloomberg.com/news/2011-03-30/torrent-power-of-india-seeks-to-buy-renewable-energy-to-meet-obligation.html)

## North America

### University of British Columbia to install 2MW biopowered CHP system

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/university-of-bc-to-install-biomass-powered-system-by-nextterra-ge.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/university-of-bc-to-install-biomass-powered-system-by-nextterra-ge.html)

### Conifex invests \$45mn in biopower plant at Mackenzie Sawmills

<http://www.researchviews.com/energy/power/biopower/DealReport.aspx?sector=Biopower&DealID=161290>

The plant will generate 230GWh/year energy fueled by waste material generated at mills and through timber harvesting.

### ReEnergy secures biomass supply in \$61mn Rumford Mill deal to convert into power

<http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/reenergy-secures-biomass-supply-in-61m-rumford-mill-deal.html>

### Biodiesel production around the world will increase at CAGR of 15.5% from 2010-2013:RNCOS

[www.biofuels-news.com/industry\\_news.php?item\\_id=3374](http://www.biofuels-news.com/industry_news.php?item_id=3374)

### SBI Energy:Global WTE market at USD 27bn by 2021

[www.waste-management-world.com/index/from-the-wires/wire-news-display/1376598776.html](http://www.waste-management-world.com/index/from-the-wires/wire-news-display/1376598776.html)

*According to the report, the market for incineration, gasification, plasma gasification, pyrolysis, and AD to grow at an annual rate of some 11% in the next 10 years.*

## Business & Markets

### BARD Holdings Inc. to produce 40,000 gallons of algae oil per year

[www.biodieselmagazine.com/articles/7681/bard-prepares-to-take-algae-production-to-new-heights](http://www.biodieselmagazine.com/articles/7681/bard-prepares-to-take-algae-production-to-new-heights)

### BP buys Brazilian sugar and ethanol group for \$680mn to expand in Brazil market

[www.af.reuters.com/article/energyOilNews/idAFLDE72A0M720110311](http://www.af.reuters.com/article/energyOilNews/idAFLDE72A0M720110311)

### Pegasus Capital, Intersection, MissionPoint Capital Partners, HarbourVest Partners and Ares Capital launch recycling energy platform in US

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/private-equity-group-launches-recycling-energy-platform.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/private-equity-group-launches-recycling-energy-platform.html)

### Rainier Biogas LLC to set up 1MW AD project

[www.biomassmagazine.com/articles/5392/rainier-biogas-embarks-on-washington-dairy-ad-project](http://www.biomassmagazine.com/articles/5392/rainier-biogas-embarks-on-washington-dairy-ad-project)

## Europe

### ECO<sub>2</sub> to develop two 40MW, €200mn biopower plants at Ialomita and Rosiori de Vede in Romania

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=3363](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=3363)

The plants will use wheat straw, straw from rape, sunflower, corn and woodchips as a fuel. Each plant will be able to combust 240,000 tonnes/year of straw.

### Green Fuels to begin production of FuelMatic biodiesel systems

[www.biodieselmagazine.com/articles/7683/green-fuels-to-begin-production-of-fuelmatic-biodiesel-systems](http://www.biodieselmagazine.com/articles/7683/green-fuels-to-begin-production-of-fuelmatic-biodiesel-systems)

The facility will process approximately 5,000 gallons of biodiesel per day.

### Daldur and EnviTec to construct 3 biogas plants fuelled by liquid manure, energy crops and grape marc in Castilla y León

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=3290](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=3290)

### Weltech Biopower starts construction of 1.5MW Central Hestia biogas plant

[www.azocleantech.com/Details.asp?newsID=14737](http://www.azocleantech.com/Details.asp?newsID=14737)

### Cannington Enterprises Ltd to turn food waste into energy

[www.bbc.co.uk/news/uk-england-somerset-12649151](http://www.bbc.co.uk/news/uk-england-somerset-12649151)

### AeroThermal Group and 4Recycling seek permission for biogas plant in Plymouth, UK

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=3364](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=3364)

The plant has capacity to process 75,000 tonnes/year of MSW.

### Babcock & Wilcox to construct 36MW, \$35mn WTE plant

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/babcock-wilcox-wins-contract-to-build-waste-to-energy-plant.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/babcock-wilcox-wins-contract-to-build-waste-to-energy-plant.html)

### FLI to set up 5 AD plants in Britain and Ireland

[www.waste-management-world.com/index/from-the-wires/wire-news-display/1382173579.html](http://www.waste-management-world.com/index/from-the-wires/wire-news-display/1382173579.html)

The power generated from food, agricultural and other organic waste will be supplied to Envar.

### Britain's biggest coal fired power station converts to biomass

[www.english.ntdtv.com/ntdtv\\_en/ns\\_europe/2011-03-07/Britain-s-Biggest-Power-Station-Goes-Biomass.html](http://www.english.ntdtv.com/ntdtv_en/ns_europe/2011-03-07/Britain-s-Biggest-Power-Station-Goes-Biomass.html)

## Business & Markets

### Africa

#### Sun Biofuels Ltd. to expand its cultivation of jatropha plants in Mozambique and Tanzania almost fivefold by 2018

[www.businessweek.com/news/2011-03-15/sun-biofuels-aims-to-expand-african-jatropha-planting-fivefold.html](http://www.businessweek.com/news/2011-03-15/sun-biofuels-aims-to-expand-african-jatropha-planting-fivefold.html)

#### Tanzania Domestic Biogas Development Programme to support €16mn for 12,000 biogas plants by 2013

[www.bioenergy-news.com/index.php?/Industry-News?item\\_id=3411](http://www.bioenergy-news.com/index.php?/Industry-News?item_id=3411)

#### Sesam Energetics and Taylor Biomass Energy to set up 40MW, \$160mn WTE plant at Namungoona in Kampala

[www.newvision.co.ug/D/8/220/748446](http://www.newvision.co.ug/D/8/220/748446)

The plant will recycle about 1,030 tonnes of solid waste from Kampala and the surrounding districts daily to generate enough power to serve over 35,000 households.

#### Copperbelt Energy Corp to expand into RE sector in Zambia

[www.ae-africa.com/read\\_article.php?NID=2787](http://www.ae-africa.com/read_article.php?NID=2787)

### Other Countries

#### Felda Global Group and Tenaga Nasional Bhd to set up RM120mn biopower plant fuelled by oil palm empty fruit bunches

[www.biz.thestar.com.my/news/story.asp?file=/2011/3/1/business/8159233&sec=business](http://www.biz.thestar.com.my/news/story.asp?file=/2011/3/1/business/8159233&sec=business)

#### A-Power to construct \$30.5mn biopower plant in China

[www.pnnewswire.com/news-releases/a-power-wins-305-million-contract-to-build-biomass-power-plant-in-china-117922029.html](http://www.pnnewswire.com/news-releases/a-power-wins-305-million-contract-to-build-biomass-power-plant-in-china-117922029.html)

#### China's Long Guang to build \$45.8mn, 100,000 mt/year biodiesel plant by 2013

[www.platts.com/RSSFeedDetailedNews/RSSFeed/Petrochemicals/7335600](http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Petrochemicals/7335600)

The plant will use cooking oil, microalgae and other oil aquatic plants as feedstock.

#### LanzaTech and Baosteel to build 100,000 gallons/year ethanol plant fuelled by steel mill waste gases in China

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/lanzatech-begins-building-china-ethanol-plant.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/lanzatech-begins-building-china-ethanol-plant.html)

#### Filipino consortium to construct P1.5bn, 100,000 KLD bioethanol plant in Candaba

[www.manilastandardtoday.com/insideBusiness.htm?f=2011/march/14/business4.isx&d=2011/march/14](http://www.manilastandardtoday.com/insideBusiness.htm?f=2011/march/14/business4.isx&d=2011/march/14)

The plant will use sweet sorghum from India as feedstock.

#### Lavajet wins \$81mn UAE waste management contract to deliver solid waste collection

[www.waste-management-world.com/index/from-the-wires/wire-news-display/1389499166.html](http://www.waste-management-world.com/index/from-the-wires/wire-news-display/1389499166.html)

#### Alstom teams up with Rotem Industries and Gefen Biomed to promote RE technology

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/alstom-forms-israeli-renewable-innovation-jv.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/alstom-forms-israeli-renewable-innovation-jv.html)

#### Averda awarded contract to turn Abu Dhabi into world's cleanest city

[www.ameinfo.com/259411.html](http://www.ameinfo.com/259411.html)



# Finance & Investments

## India

### IFC to invest up to \$30mn in Shalivahana Green Energy Ltd

[www.vccircle.com/500/news/ifc-may-invest-up-to-30m-in-shalivahana-green-energy](http://www.vccircle.com/500/news/ifc-may-invest-up-to-30m-in-shalivahana-green-energy)

The company is currently constructing 3 new 45MW of biopower plants.

## North America

### Natural Chem Holdings to invest \$22mn in Renova Energy plant to produce biogas, biodiesel

[www.biofuelsdigest.com/bdigest/2011/03/01/natural-chem-holdings-plans-22m-in-old-renova-energy-plant-in-texas/](http://www.biofuelsdigest.com/bdigest/2011/03/01/natural-chem-holdings-plans-22m-in-old-renova-energy-plant-in-texas/)

### BlackRock, NTR launch renewable power investment group

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/blackrock-ntr-launch-renewable-power-investment-group.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/blackrock-ntr-launch-renewable-power-investment-group.html)

### Al Gore firm invests \$51.7mn in organic waste recycler

[www.news.cnet.com/8301-11128\\_3-20043733-54.html](http://www.news.cnet.com/8301-11128_3-20043733-54.html)

### Soros fund Management invests \$143mn in Canadian WTE group Plasco Energy

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/soros-leads-143m-equity-investment-in-canadian-waste-to-energy-group-plasco.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/soros-leads-143m-equity-investment-in-canadian-waste-to-energy-group-plasco.html)

The fund will go towards Plasco's new commercial projects in Canada, the US, China and Europe.

## Europe

### Terra Firma to invest €500mn in clean energy in 2011

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/terra-firma-earmarks-e500m-clean-energy-investment-report.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/terra-firma-earmarks-e500m-clean-energy-investment-report.html)

### UK Energy Technologies Institute invests £62mn in renewables

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/uk-energy-technologies-institute-invests-62m-in-renewables.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/uk-energy-technologies-institute-invests-62m-in-renewables.html)

### Greensphere Capital invests £200mn in green energy

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/private-equity/veteran-jon-moulton-launches-200m-green-investment-fund.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/private-equity/veteran-jon-moulton-launches-200m-green-investment-fund.html)

## Other Countries

### World Bank finances \$150mn for China's wastewater treatment project

[www.newenergyworldnetwork.com/renewable-energy-news/by-technology/water/world-bank-finances-china-wastewater-treatment-project.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/water/world-bank-finances-china-wastewater-treatment-project.html)

## India

### Scientists at National chemical Laboratory use biomass to make toothpaste and chocolates

[www.articles.timesofindia.indiatimes.com/2011-03-23/pune/29177540\\_1\\_biomass-national-chemical-laboratory-toothpaste](http://www.articles.timesofindia.indiatimes.com/2011-03-23/pune/29177540_1_biomass-national-chemical-laboratory-toothpaste)

According to scientist Mr. Paresh Dhepe, they convert components of biomass into chemicals which can be used as sweeteners and this process will not generate industrial waste.

## North America

### Natural Chem Holdings LLC to produce biogas from ethanol syrup

[www.ethanolproducer.com/articles/7545/former-renova-plant-digester-to-produce-biogas-from-ethanol-syrup](http://www.ethanolproducer.com/articles/7545/former-renova-plant-digester-to-produce-biogas-from-ethanol-syrup)

The biogas produced by the digester will be sold into the natural gas market.

### Fuel Company makes biopellet binder from Nu Materials

[www.biomassmagazine.com/articles/5341/new-biomass-pellet-binder-from-nu-materials](http://www.biomassmagazine.com/articles/5341/new-biomass-pellet-binder-from-nu-materials)

The binder will make biopellets moisture resistant and allow for the blending of coal and biomass material.

Stanford researchers and PNAS study: Widespread cultivation of perennial grasses could lower regional surface temperatures by 2 °F

[www.rdmag.com/News/2011/03/Energy-Biofuels-Bioenergy-Crops-Could-Lower-Surface-Temperatures/](http://www.rdmag.com/News/2011/03/Energy-Biofuels-Bioenergy-Crops-Could-Lower-Surface-Temperatures/)

### PepsiCo to launch 100% recyclable PET bottle in 2012

[www.interpack.com/cipp/md\\_interpack/custom/pub/content,oid,15067/lang,2/ticket,g\\_u\\_e\\_s\\_t~/PepsiCo\\_to\\_launch\\_100\\_plant-based\\_PET\\_bottle\\_in\\_2012.html](http://www.interpack.com/cipp/md_interpack/custom/pub/content,oid,15067/lang,2/ticket,g_u_e_s_t~/PepsiCo_to_launch_100_plant-based_PET_bottle_in_2012.html)

The bottle will be manufactured using bio-based raw materials, including switchgrass, pine bark, and corn husks.

### Construction of biorefinery in Pittsylvania County

[www.therepublic.com/view/story/88eff0571f9f4cd7912f887d796fc41d/VA--Biomass-Refinery/](http://www.therepublic.com/view/story/88eff0571f9f4cd7912f887d796fc41d/VA--Biomass-Refinery/)

The refinery would produce about 6,000 gallons of oil per day from waste organic material

## Europe

### £860mn Renewable Heat Incentive (RHI) scheme in UK

<http://www.guttridge.co.uk/news/2011/03/16/rhi-scheme-will-promote-biomass-technology-among-farmers/>

The scheme will increase the number of farmers investing in biomass technology and will reduce the UK's reliance on fossil fuels.

## Africa

### A Limpopo community turns cow dung into biogas in Giyani

<http://www.buanews.gov.za/news/11/11030508551001p>

## Other Countries

### FTJ Bio Power Sdn Bhd to construct WTE plant in Malaysia

<http://www.fastcompany.com/1733054/fruit-tree-biomass-waste-turns-into-energy-source-for-malaysia>

The plant will generate 12.5mn watts of electricity from waste palm branches.

# Climate Change & Environment

## India

### Indian Ocean could help combat climate change

[www.abc.net.au/news/stories/2011/03/14/3163771.htm](http://www.abc.net.au/news/stories/2011/03/14/3163771.htm)

As per the research, Indian Ocean absorbs 3 times more CO<sub>2</sub> than the Atlantic Ocean.

### Weather department in Ahmedabad educates people on climate change

[http://www.dnaindia.com/india/report\\_met-dept-seeks-to-create-awareness-about-climate-change\\_1523283](http://www.dnaindia.com/india/report_met-dept-seeks-to-create-awareness-about-climate-change_1523283)

### Nalco to set up carbon absorption unit at its coal-fired captive power plant at Angul

[www.business-standard.com/india/news/nalco-to-setcarbon-reduction-unit-at-cpp/429409/](http://www.business-standard.com/india/news/nalco-to-setcarbon-reduction-unit-at-cpp/429409/)

Through this unit Nalco will manage and store CO<sub>2</sub> or other forms of carbon to reduce carbon emission and get carbon credits.

## Europe

### Gateshead College to train workers to tackle climate change

[www.nebusiness.co.uk/supplements/north-east-vision/spring-2011/2011/03/21/gateshead-college-helping-to-tackle-climate-change-51140-28307383/](http://www.nebusiness.co.uk/supplements/north-east-vision/spring-2011/2011/03/21/gateshead-college-helping-to-tackle-climate-change-51140-28307383/)

### Singapore and Hadley Centre of UK to study climate change

[www.channelnewsasia.com/stories/singaporelocalnews/view/1114413/1/.html](http://www.channelnewsasia.com/stories/singaporelocalnews/view/1114413/1/.html)

## Other Countries

### ICIMOD and its Nepal Partners organizes sharing event on Enhancing Climate Resilience and Adaptive Capacity in Nepal

[www.indiaeducationdiary.in/showEE.asp?newsid=8249](http://www.indiaeducationdiary.in/showEE.asp?newsid=8249)

International Centre for Integrated Mountain Development (ICIMOD) with support from the Governments of Finland, Germany, Norway, Sweden, and Switzerland has strengthened its capacity in the field of climate change adaptation by jointly designing and launching projects and programmes to deal with issues such as disaster risk reduction, livelihoods diversification, biodiversity conservation, integrated watershed management, and avoidance of deforestation and forest degradation (REDD).

### Abbreviations Used

mn - Million | bn - Billion | RE - Renewable Energy | BTL - Biomass-To-Liquid | CDM - Clean Development Mechanism | CCS - Carbon Capture & Storage | BCAP - Biomass Crop Assistance Program | MSW - Municipal Solid Waste | AD - Anaerobic Digestion | WTE - Waste - to - Energy

**Pellexo, our Eco friendly and carbon neutral, biomass-pellet, is a refined and densified biomass fuel that allows remarkable consistency and burn efficiency at substantially lower particulate emissions.**



Pellexo is a powerful replacement to conventional fossil fuels, widely utilized in boilers, furnaces and kilns across various manufacturing facilities. Produced in our state-of-the-art manufacturing facility, the product can be put to a series of uses ranging from co-firing in thermal power plants, to meeting the needs of small manufacturing facilities and farms, as well as for home heating purpose.



## ADVANTAGES

- 1 SUSTAINABLE**
  - Made from refined and densified leftover agri residues
- 2 SAFE**
  - No fire hazard during transport and storage
- 3 ENVIRONMENT FRIENDLY**
  - Low emission of polluting gases
  - Less dusting
  - Reduced load on pollution control equipment
- 4 CORPORATE RESPONSIBILITY**
  - Better carbon footprint
  - Enhancing clean and green image
  - Improved workplace environment

## Abellon CleanEnergy

Corporate Headquarters: Sangeeta Complex, Nr. Parimal Crossing, Ellisbridge, Ahmedabad - 380 006, INDIA.  
Tel.: +91-79-6630 9332 | Fax: +91-79-6630 9334  
E-mail: [abellon@abelloncleanenergy.com](mailto:abellon@abelloncleanenergy.com) | Web: [www.abelloncleanenergy.com](http://www.abelloncleanenergy.com) | [www.pellexo.com](http://www.pellexo.com)