



## HIGHLIGHTS

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Dear Readers,

Global thought leaders are giving all they have to try and achieve a consensus on tackling the issues of climate change and energy dependence. This was demonstrated once again through the "Clean Energy Ministerial" - a first-of-its-kind event that brought together ministers from 24 nations who came together with a vision to collaborate on policies and programs that accelerate and promote the world's transition to clean energy technologies, while helping to overcome the barriers on the way to speed up for this transition. The participating nations in the Ministerial account for more than 80% of global energy consumption and a similar percentage of the market for cleantech.

Dignitaries attending included Steven Chu, Montek Singh Ahluwalia, Dr. RK Pachauri, Georgina Kessel, Kandeh Yumkella and many more. Commenting on this positive development, US Energy Secretary Dr. Steven Chu said, "These steps will promote economic growth, create jobs and cut GHG emissions. What we've seen here is that working together; we can accomplish more, faster, than working alone."

At BECI, we hope to do our bit to support this momentum by sharing with our readers such key developments in the global cleantech arena, and helping to build a stronger "voice of cleantech" in the interests of a greener today and tomorrow

Thanking You.

**"Last year, global investment in clean energy reached \$145 billion, and that number will grow in the years ahead. With the right vision and the right commitment, we can build a clean energy economy that provides good jobs and sets the world up for decades of sustainable economic growth."**

**-- US Secretary of Commerce  
Gary Locke**

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Bio-Energy Times @  
<http://www.bioenergyindia.org/frmsendnewsfeedback.aspx>

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# Policy Initiatives - INDIA

## RE supply can meet the 2015 target

[http://in.news.yahoo.com/43/20100714/836/tbs-renewable-energy-supply-can-meet-the\\_1.html](http://in.news.yahoo.com/43/20100714/836/tbs-renewable-energy-supply-can-meet-the_1.html)

Experts say that RE sources can meet the 10% target set by the National Action Plan on Climate Change by 2015 and supply from RE resources would exceed 47,720MW by 2015.

## Green India Mission may exceed estimate of GHG emission reduction potential

<http://www.livemint.com/2010/07/20215133/Green-India-Mission-may-exceed.html?atype=tp>

The Green India Mission has more GHG emission reduction potential than previously estimated, as the mission could offset about 10.5% of projected national GHG emissions compared to 6.4% estimated by the ministry of environment and forests.

## India-UK to cooperate in RE sector

[www.dayafterindia.com/detail.php?headline=content&catid=763](http://www.dayafterindia.com/detail.php?headline=content&catid=763)

## Bio-power revolution in Madhya Pradesh

[www.centralchronicle.com/viewnews.asp?articleID=42180](http://www.centralchronicle.com/viewnews.asp?articleID=42180)

The Madhya Pradesh Government has dedicated to people a 5KW bio-power generation plant which would generate electricity using human waste.

## India plans grants covering 40% cost of developing new biogas plants

[www.ibtimes.com/articles/35141/20100713/ministry-of-new-and-renewable-energy-biogas-fertilizer-plants-biomass-materials-in-sugar-mills-ao.htm](http://www.ibtimes.com/articles/35141/20100713/ministry-of-new-and-renewable-energy-biogas-fertilizer-plants-biomass-materials-in-sugar-mills-ao.htm)

MNRE is providing grants to cover up to 40% of the cost of developing and distributing biogas- fertilizer plants for electricity generation. It has also sanctioned 11 projects with capacity up to 1,000 cubic meters in 8 states across the country.

## UP municipalities face the energy test

<http://www.business-standard.com/india/news/up-municipalities-faceenergy-test/401321/>

*The Bureau of Energy Efficiency (BEE) is conducting an energy audit in large municipalities including Kanpur, Varanasi, Allahabad, Lucknow and Ghaziabad which cover all government buildings, street lights and sewage system. A databank will be prepared on the findings, listing the total energy requirements and the potential steps to save energy in the sectors.*

*This will calculate total energy requirements & save about 2,000MW of energy. According to BEE estimates, energy consumption in agriculture and big commercial buildings could be almost 30% more efficient.*

*BEE has appointed UP Power Corporation Limited as the State Designated Agency for the project.*

*The bureau will also audit another 18 Government building in Lucknow and help draw out energy-saving measures.*

## N&RE invites applications for family size biogas plants

<http://www.morungexpress.com/local/51722.html>

## India approves Ganga Action Plan-II

<http://www.igovernment.in/site/india-approves-ganga-action-plan-ii-37948>

# Policy Initiatives - GLOBAL

## North America

### DoE selects 4 advanced coal or coal/biomass gasification project for funding

<http://www.favstocks.com/doe-selects-four-advanced-coal-or-coalbiomass-gasification-projects-for-up-to-5-9m-in-funding-to-test-membrane-separation-technology/2721619/>

The US DoE has selected four advanced coal gasification projects for funding of up to \$5.9mn, with an additional \$1.7mn of non-Federal cost sharing funds to test Membrane technology to separate H<sub>2</sub> & CO<sub>2</sub> from coal or coal/biomass-derived synthesis gas such as from Integrated Gasification Combined Cycle power systems at Fossil Energy's National Energy Technology laboratory. This test will address issues like:

- Overall power plant efficiency
- Electricity cost to the consumer
- Usage of H<sub>2</sub> produced from the separation CO<sub>2</sub> sequestration
- To mitigate GHG emissions by isolating the CO<sub>2</sub> produced during gasification, facilitating permanent geological sequestration, or storage.

### EPA, USDA invest in energy from farm biogas

[http://www.biomassmagazine.com/article.jsp?article\\_id=3934](http://www.biomassmagazine.com/article.jsp?article_id=3934)

The EPA and USDA will provide up to \$3.9mn to help farmers capture their methane emissions, use them to produce energy & to improve technical standards and guidance for the construction and evaluation of biogas recovery systems.

### EPA sets 2011 biofuel percentages to meet 2022 target

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/epa-sets-2011-biofuel-percentages-to-meet-2022-target.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/epa-sets-2011-biofuel-percentages-to-meet-2022-target.html)

The percentage standards that the US EPA has proposed for the four RFS2 fuels categories in 2011 under its Renewable Fuel Standard programme includes cellulosic biofuels at between 0.0004% & 0.015%, advanced biofuels at 0.77% and biomass-based diesel at 0.68%.

### WSU to lead Pacific NW aviation biofuel project

[http://www.biomassmagazine.com/article.jsp?article\\_id=3946](http://www.biomassmagazine.com/article.jsp?article_id=3946)

*A regional renewable jet fuel collaboration will officially kick off under the research leadership of Washington State University a project that will assess four states Washington, Oregon, Idaho and Montana to determine biomass feedstock growth, harvest, refining and transport options in relation to sustainable aviation fuel production.*

*Other collaborative partners include Alaska Airlines, Boeing, the Port of Seattle, the Port of Portland and Spokane International Airport. Research will include an analysis of biofuel feedstocks native to the Pacific Northwest region, including algae, oilseeds such as camelina and woody biomass.*

### DoE has awarded \$67m to 10 projects aimed at improving energy efficiency in the CCS

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/us-announces-federal-funding-of-67m-to-increase-ccs-efficiency.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-announces-federal-funding-of-67m-to-increase-ccs-efficiency.html)

## Policy Initiatives - GLOBAL

### Almost 16% US gas demand could be replaced by renewable equivalent: National Grid

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/almost-a-fifth-of-us-gas-demand-could-be-replaced-by-renewable-equivalent-says-national-grid.htm](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/almost-a-fifth-of-us-gas-demand-could-be-replaced-by-renewable-equivalent-says-national-grid.htm)

### Pennsylvania invests \$3m in energy retrofit projects

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/pennsylvania-invests-3m-in-energy-retrofit-projects.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/pennsylvania-invests-3m-in-energy-retrofit-projects.html)

### 25x'25 alliance progress report released

[http://www.biomassmagazine.com/article.jsp?article\\_id=3925](http://www.biomassmagazine.com/article.jsp?article_id=3925)

A new report titled, "Meeting the 25x'25 Goal: A Progress Report," shows that between 2004 and 2009, RE produced in the U.S. increased by 23%. In May 2009, 11.5% of all energy produced in the U.S. came from renewable sources, a record for the clean energy sector.

### Nations make steps towards using clean energy in global markets

<http://www.montrealgazette.com/technology/Nations+make+steps+towards+using+clean+energy+global+markets/3304835/story.html>  
<http://www.ecoseed.org/en/general-green-news/green-topics/green-policies/other-green-policies/7635-Countries-forge-11-green-initiatives-for-global-low-carbon-future> [http://news.xinhuanet.com/english2010/world/2010-07/21/c\\_13407683.htm](http://news.xinhuanet.com/english2010/world/2010-07/21/c_13407683.htm)

*Under the aegis of world's first Clean Energy Ministerial, 24 countries have launched 11 initiatives to accelerate the global transition to clean energy and low-carbon future. These countries collectively consume more than 80% of the world's energy and account for 70% of global GHG emissions.*

*These initiatives will cut energy waste; help deploy smart grid, electric vehicle, and CCS technologies; support RE markets; expand access to clean energy resources and jobs; and support women pursuing careers in clean energy.*

*It is expected that the initiatives will eliminate the need to build more than 500 mid-sized power plants world-wide in the next 20 years. Also, the concerted international efforts to improve the efficiency of televisions alone could reduce energy use equal to that of about 80 power plants by 2030!*

## Europe

### Biomass boosted up by funding pledge

<http://www.guttridge.co.uk/news/2010/07/28/biomass-industry-boosted-by-funding-pledge/>

According to Department of Energy and Climate Change, waste-to-energy plants and anaerobic digestion facilities will receive funding under the Renewables Obligation (RO) system until 2037.

### U.K. removes financing obstacle for biomass energy

<http://www.businessweek.com/news/2010-07-27/u-k-removes-financing-obstacle-for-biomass-energy.html>

*The U.K. Government has removed an obstacle to financing biopower plants which would support the industry through obligations on utilities to use clean energy for the next 20 years.*

### Share of EU renewable electricity generation capacity rises

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/wind/share-of-eu-renewable-new-electricity-generation-capacity-rises.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/wind/share-of-eu-renewable-new-electricity-generation-capacity-rises.html)

As per the European Commission's Joint Research Centre, RE sources accounted for 19.9% of Europe's electricity consumption last year, up 5% from 2008.

## Policy Initiatives - GLOBAL

### Süd-Chemie secures financing to build Germany's largest bioethanol plant

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/sud-chemie-to-build-germany%e2%80%99s-largest-bioethanol-plant.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/sud-chemie-to-build-germany%e2%80%99s-largest-bioethanol-plant.html)

Süd-Chemie is to build Germany's largest bioethanol plant, which will be subsidised in part by the Bavarian State Government and Germany's Federal Ministry of Education and Research each providing €5m. The total project will cost €28m with an investment volume of around €16m and accompanying research projects amounting to €12m.

### Carbon Trust launches new funding initiative to stimulate investment in UK early-stage cleantech through R & D funding

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/carbon-trust-launches-new-funding-initiative-to-stimulate-investment-in-uk-early-stage-cleantech.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/carbon-trust-launches-new-funding-initiative-to-stimulate-investment-in-uk-early-stage-cleantech.html)

### European Commission's Joint Research Centre calculates carbon stock changes

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/european-commission%e2%80%99s-joint-research-centre-designs-methodology-to-calculate-carbon-stock-changes.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/european-commission%e2%80%99s-joint-research-centre-designs-methodology-to-calculate-carbon-stock-changes.html)

Following the IPCC guidelines for national GHG inventories, JRC has designed a methodology to calculate carbon stock changes. The standard methodology and the carbon stock coefficients together with the data layers will enable economic operators to determine the changes in land carbon stocks that arise from the conversion of land for biofuels production.

### European Emissions cut should be 30%, not 20%: Ministers

<http://www.businessweek.com/news/2010-07-15/european-emissions-cut-should-be-30-not-20-ministers-say.html>

The EU should raise its target to 30% to cut GHG by 2020 which would cost 33bn euros.

### Fossil fuel subsidies are 12 times support for renewables: Study

<http://www.bloomberg.com/news/2010-07-29/fossil-fuel-subsidies-are-12-times-support-for-renewables-study-shows.html>

The EU should raise its target to 30% to cut GHG by 2020 which would cost 33bn euros.

### UK general election cannot afford to delay RE investment: REA

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/solar-by\\_technology-new-news/uk-general-election-cannot-afford-to-delay-renewable-energy-investment-says-rea.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/solar-by_technology-new-news/uk-general-election-cannot-afford-to-delay-renewable-energy-investment-says-rea.html)

### Climate change committee advises for change in UK's approach to RE

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/climate-change-committee-calls-for-step-change-in-uk%e2%80%99s-approach-to-renewable-energy.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/climate-change-committee-calls-for-step-change-in-uk%e2%80%99s-approach-to-renewable-energy.html)

### Energy region EEF urges UK to stabilise carbon pricing, introduce carbon-based levy and push CCS

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/industry-body-urges-uk-to-stabilise-carbon-pricing-introduce-carbon-based-levy-and-push-ccs.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/industry-body-urges-uk-to-stabilise-carbon-pricing-introduce-carbon-based-levy-and-push-ccs.html)

## Africa

### Another country to boost Kenyan RE

[http://ae-africa.com/read\\_article.php?NID=2193](http://ae-africa.com/read_article.php?NID=2193)

The French Development Agency has approved the funding of Sh 2bn to become available for private organizations operating in the RE sector including biomass.

# Policy Initiatives - GLOBAL

## Other Countries

### Philippines: P1.67bn for a 10-MW biopower project

<http://www.mb.com.ph/articles/269398/boi-okays-p167bn-re-power-project>

The P1.673 bn, 10 MW biomass plant being set up by Unisan Biogen Group (UBG) in Quezon leads the P2.16 billion project approvals by the Board of Investments. The power plant will utilize coconut husks, wood chips and other biomass wastes as fuels.

To ensure adequate supply of these fuel sources, UBG has entered in long-term deals with coconut farmers in Quezon, Batangas, Bicol, and other provinces. At full capacity, the company needs about 90,230 metric tons of biomass wastes. Commercial operations are slated to start on January 2013.

### China's energy efficiency figures are closer to 2010 emissions target

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/china%e2%80%99s-energy-efficiency-figures-indicate-it-is-closer-to-meeting-2010-emissions-target.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/china%e2%80%99s-energy-efficiency-figures-indicate-it-is-closer-to-meeting-2010-emissions-target.html)

China has committed to slash its energy intensity by 20% five years on from its levels in 2005.

### China surges past U.S., Europe in Clean-energy asset financing

<http://www.businessweek.com/news/2010-07-13/china-surges-past-u-s-europe-in-clean-energy-asset-financing.html>

Financing for low-carbon technology in China climbed 72% to \$11.5bn compared with the earlier quarter.

### ADB invests \$100m in China environmental initiative

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/water/asian-development-bank-invests-100m-in-china-environmental-initiative.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/water/asian-development-bank-invests-100m-in-china-environmental-initiative.html)

*ADB is providing a \$100m loan for urban environmental initiative in China which serves as a model for sustainable management of wastewater sludge in the county.*

### Australia's PM pledges AUD\$1bn of RE investment

[http://www.newenergyworldnetwork.com/renewable-energy-news/news\\_type/policy-by\\_technology/new-news/australia%e2%80%99s-pm-pledges-aud1bn-of-renewable-energy-investment.html](http://www.newenergyworldnetwork.com/renewable-energy-news/news_type/policy-by_technology/new-news/australia%e2%80%99s-pm-pledges-aud1bn-of-renewable-energy-investment.html)

Australia will invest AUD\$1bn over the next decade in its electricity network to connect its remote renewable resources under the Labor Party's new leader Julia Gillard. Federal Labor will also invest AUD\$100m over 4 years in a new Renewable Energy Venture Capital fund.

### Indonesia receives \$300m climate change mitigation loan from Japan International Cooperation Agency

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/indonesia-receives-300m-climate-change-mitigation-loan-from-japan-international-cooperation-agency.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/indonesia-receives-300m-climate-change-mitigation-loan-from-japan-international-cooperation-agency.html)

Japan International Cooperation Agency has signed a \$307m loan titled 'Climate Change Programme Loan III' with Indonesia having structural tools such as forest conservation and management, RE development and the promotion of energy efficiency to fund its climate change mitigation agenda. A presidential rule formed by Indonesia will reduce carbon emissions by 26% by 2020.

### Thailand launches RE feed-in-tariff

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/thailand-launches-renewable-energy-feed-in-tariff.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/thailand-launches-renewable-energy-feed-in-tariff.html)

### S.Korea: \$1.25bn environmental fund to assist projects in emissions reduction & energy efficiency

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/south-korea-to-establish-1-25bn-environmental-fund.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/south-korea-to-establish-1-25bn-environmental-fund.html)



# Business & Markets - GLOBAL

## North America

### Next Step Biofuels to test patent-pending biomass at OPPD

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/next-step-biofuels-to-test-patent-pending-biomass-at-omaha-public-power-district.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/next-step-biofuels-to-test-patent-pending-biomass-at-omaha-public-power-district.html)

Next Step Biofuels would test burning of 2,200 tons of Power Pellets at OPPD to replace up to 5% of the coal burned in one of OPPD's North Omaha Station boilers during the one-month co-firing test.

### Market value of biomass electricity to reach \$53bn by 2020

<http://www.sustainablebusiness.com/index.cfm/go/news.display/id/20740>

The market value of electricity generated from biomass in the US will increase to \$53bn by 2020, up from approximately \$45bn in 2010. Also, the USDA announced the award of more than \$4.2 million in grants to 13 small businesses and community groups developing RE projects and new product development using woody biomass from national forest lands.

### Gestamp, Clean Power team up in the NE

[http://www.biomassmagazine.com/article.jsp?article\\_id=3963](http://www.biomassmagazine.com/article.jsp?article_id=3963)

Clean Power Development LLC is teaming up with Gestamp Biomass to develop woody biomass CHP projects of 180MW in the Northeast U.S. which could result in between six and eight plants, all using logging residue and low-grade wood.

### Oregon awaits 24MW biomass plant

[http://www.biomassmagazine.com/article.jsp?article\\_id=3955](http://www.biomassmagazine.com/article.jsp?article_id=3955)

### Earl Fisher Biofuels to supply 24,000 gallons of biodiesel to Burlington Northern Santa Fe Railway Co

[http://www.biodieselmagazine.com/article.jsp?article\\_id=4306](http://www.biodieselmagazine.com/article.jsp?article_id=4306)

### EPA canola oil biodiesel creates a 50% reduction in GHG emissions compared to the diesel

[http://www.biodieselmagazine.com/article.jsp?article\\_id=4303](http://www.biodieselmagazine.com/article.jsp?article_id=4303)

### Biodiesel an option for 2011 RFS2 shortage

[http://www.biodieselmagazine.com/article.jsp?article\\_id=4296](http://www.biodieselmagazine.com/article.jsp?article_id=4296)

### Rothsay Biodiesel examines biodiesel fleet results, approx 700 tons of CO<sub>2</sub> reduction & removal of 130 cars from the road

[http://www.biodieselmagazine.com/article.jsp?article\\_id=4301](http://www.biodieselmagazine.com/article.jsp?article_id=4301)

### Portland biodiesel prices drop below diesel

[http://www.biodieselmagazine.com/article.jsp?article\\_id=4269](http://www.biodieselmagazine.com/article.jsp?article_id=4269)

### European energy firms look to U.S. as biomass source

<http://www.manufacturing.net/News-European-Energy-Firms-Look-To-US-As-Biomass-Source-071310.aspx>

Demand for woody biomass, in the form of wood chips, wood pellets & torrefied pellets will increase substantially in Europe over the next 10 years. (North American Wood Fiber Review, as published by Wood Resources International). The report covers both, pulpwood & biomass markets in North America.

## Business & Markets - GLOBAL

### Vista inks deal for "Closed-Loop" RE solutions

[http://www.marketwatch.com/story/vista-inks-deal-for-closed-loop-renewable-energy-solutions-2010-07-28?reflink=MW\\_news\\_stmp](http://www.marketwatch.com/story/vista-inks-deal-for-closed-loop-renewable-energy-solutions-2010-07-28?reflink=MW_news_stmp)

*Vista International Technologies, Inc and Emerald Energy LLC have signed a Letter of Intent to collaborate on Closed-Loop Biomass-to-Energy projects in the US and abroad.*

*Under the terms of the agreement, Vista will have an exclusive license to use Emerald Energy's proprietary MegaFlora(TM) tree in Biomass-to-Energy projects in the Western Hemisphere. MegaFlora(TM) trees are ideal for Biomass-to-Energy projects due to their hardiness, high density wood and rapid growth characteristics. The trees have no invasive characteristics, use very little water, and can be harvested for biomass in just 3 years, versus 10 or more for most other hardwood feedstocks.*

*MegaFlora(TM) trees have been tested in Fresno County, California, and are currently being grown in multiple locations in the USA. The collaboration between Emerald and Vista is being established to fulfill several pending energy production contracts.*

### Fortistar LLC has developed 18 new landfill Gas-To-Energy projects

[http://www.biomassmagazine.com/article.jsp?article\\_id=3953](http://www.biomassmagazine.com/article.jsp?article_id=3953)

Fortistar LLC will add 18 new landfill-gas-to-energy projects to its portfolio, bringing the total to about 60 plants in operation all over the USA. The company secured \$105 million in financing for the projects. All the landfill gas plants will be built, owned and operated by Fortistar produce electricity, which is sold to utilities or municipalities. Most of the projects use reciprocating engines, burning the methane that emits naturally from the landfills. All these projects together will add another 60 MW to Fortistar's existing capacity of more than 230 MW.

### EPS earns Carbon Disclosure Project accreditation

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/eps-earns-carbon-disclosure-project-accreditation.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/eps-earns-carbon-disclosure-project-accreditation.html)

## Europe

### World's largest biomass refinery goes live:Inbicon

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/world%E2%80%99s-largest-biomass-refinery-goes-live-inbicon-reports.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/world%E2%80%99s-largest-biomass-refinery-goes-live-inbicon-reports.html)

European biomass company Inbicon's new biomass refinery will be the largest of its kind worldwide, generating 1.4 million gallons of cellulosic ethanol annually, has become operational.

The Inbicon Biomass Refinery can demonstrate dramatically improved efficiencies when integrated with a coal-fired power station, grain-ethanol plant, or any CHP operation. The Kalundborg refinery will be integrated with Denmark's largest power generator, the Asnaes Power Station. The plant will use a variety of feedstocks including straw, corn stalks and cobs, sugar bagasse, and grasses.

Waste steam from the power station will run the biomass refinery, increasing the refinery's total energy efficiency to 71%.

Great River Energy, a Minnesota electric cooperative, will install a commercial-scale Inbicon Biomass Refinery processing plant in North Dakota to be co-located with their new 64MW Spiritwood Station. Integro Services Group is also planning to install a corn-to-ethanol plant in Alton, Illinois integrated with an Inbicon biomass refinery. Inbicon is also working with Mitsui Engineering & Shipbuilding on refineries in Asia.

## Business & Markets - GLOBAL

### Turkey: Energy generation potential from biomass

<http://www.informaworld.com/smpp/content-db=all-content=a924602735>

*Turkey has major biomass potential of 32 Mtoe which includes wood, animal, and plant wastes & also 4 mn ha of degraded coppice forests for energy forestry applications. Biomass is the major source of energy in rural Turkey to generate electricity, heat homes, fuel vehicles and provide process heat for industrial facilities. Among the biomass energy sources, share of fuelwood in the total energy production of Turkey is high at 21%. The amount of usable biomass potential of Turkey is approximately 17 Mtoe. The electrical production from usable biomass has a net impact of 4.4bn USD in personal and corporate income and represents more than 160,000 jobs. There is a total 4 mn ha of degraded coppice forests for energy forestry applications in Turkey.*

*Converting coppice forests into productive energy forests to meet the continually-increasing fuel requirements in Turkey prevents the destruction of highly productive forests, therefore supplying more wood raw material for the forest industry, which at present operates with a low capacity. At the end of 2006, 623.247 ha of energy forest have been established.*

### Power-Gen:4,000 Ukrainian cows fuel biogas generator

[http://www.kyivpost.com/news/business/bus\\_general/detail/74622/](http://www.kyivpost.com/news/business/bus_general/detail/74622/)

### Intertek's new carbon offset program

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/intertek-launches-carbon-offset-programme.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/intertek-launches-carbon-offset-programme.html)

### Mitsubishi-UK utility SSE: Agree to develop low carbon vehicles

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/wind/mitsubishi-forms-agreement-with-uk-utility-sse-to-develop-offshore-wind-and-low-carbon-vehicles.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/wind/mitsubishi-forms-agreement-with-uk-utility-sse-to-develop-offshore-wind-and-low-carbon-vehicles.html)

## Latin America

### Brazil would produce 2<sup>nd</sup>-gen ethanol of 17.3bn liters by 2020

<http://checkbiotech.org/node/26133>

## Africa

### EA Government urged to promote biogas

<http://www.thecitizen.co.tz/business/14-international-business/2764-ea-government-urged-to-promote-biogas-solar.html>

### Vitol S.A. and Revonergy Inc. sign ERPA for wood waste-to-energy project

[http://www.marketwatch.com/story/vitol-sa-and-revonergy-inc-sign-emission-reduction-purchase-agreement-for-wood-waste-to-energy-project-2010-07-08?reflink=MW\\_news\\_stmp](http://www.marketwatch.com/story/vitol-sa-and-revonergy-inc-sign-emission-reduction-purchase-agreement-for-wood-waste-to-energy-project-2010-07-08?reflink=MW_news_stmp)

Revonergy Inc.'s wholly owned subsidiary, Revonergy Biopower Limited has entered into an Emission Reduction Purchase Agreement with Swiss based Vitol S.A. The agreement is for the sale by Revonergy to Vitol of Certified Emission Reductions generated by Revonergy's wood waste to energy project in Ondo State in Nigeria, West Africa. This Project is in the development stage and is projected to have a capacity of 14MW.

### Ghana to develop bio-fuel industry

<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=186641>

The Council for Scientific and Industrial Research has partnered with the Energy Technology Research Group of the Southampton University, UK to develop bio-fuel in Ghana.

## Business & Markets - GLOBAL

### UK company to establish Jatropha plantation in Ghana

<http://www.africanagricultureblog.com/2010/07/uk-company-to-establish-jatropha.html>

UK-based Vepower & biofuel feedstock company Jatropha Africa has an agreement to finance the company's 50,000 hectare jatropha plantation in Ghana which would give 70,000 tonnes of oil annually which is enough to produce biodiesel to power over 60,000 cars for one year.

### Other Countries

#### Biomass Pellets Trade Asia: Summit in Jakarta exploring issues like densification, biomass transportation and investment

<http://pellets-wood.com/biomass-pellets-trade-asia-a-buyers-sellers-meet-explores-investment-densification-transportation-of-biomass-04961.html>

#### WELtec BioPower GmbH selects XEBEC for upcoming biogas-to-CNG project in Wuxi, China

[http://www.marketwatch.com/story/xebec-receives-its-first-chinese-order-for-a-biogas-upgrading-plant-weltec-biopower-selects-xebec-for-wuxi-biogas-to-cng-project-2010-07-07?reflink=MW\\_news\\_stmp](http://www.marketwatch.com/story/xebec-receives-its-first-chinese-order-for-a-biogas-upgrading-plant-weltec-biopower-selects-xebec-for-wuxi-biogas-to-cng-project-2010-07-07?reflink=MW_news_stmp)

#### DP CleanTech expands into Thailand

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/biomass-company-dp-cleantech-expands-into-thailand.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/biomass-company-dp-cleantech-expands-into-thailand.html)

DP CleanTech has identified Thailand to be the next major market for biopower systems in South East Asia, after completing 18 biomass power plant projects in less than 4 years in China. It has also opened a new sales office in Bangkok, as a part of its expansion strategy for biomass power in the South East Asia region. The reason behind this strategic move is South East Asia, being a home to 1/3rd of the world's attainable biomass, of which Thailand contributes a significant proportion. Apart from that, abundant resources and accommodative RE policies also provide an excellent opportunity for further biomass market development in Thailand.

#### Australian manufacturer CSR sells bioenergy unit to Wilmar International

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/australian-manufacturer-csr-sells-bioenergy-unit-to-singapore-agribusiness-wilmar.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/australian-manufacturer-csr-sells-bioenergy-unit-to-singapore-agribusiness-wilmar.html)

Australia-based CSR has agreed to sell its RE and sugar business, Sucrogen, to Singapore-based Wilmar International for AUS\$1.75bn (\$1.47bn). The sale will enable Sucrogen to develop its global cost-competitive position in raw sugar milling, together with its positions in refining and RE as part of Wilmar. Wilmar intends to work with Sucrogen's existing management to enhance the Australian and New Zealand operations and to pursue Asian growth opportunities.

Global production of ethanol & biodiesel will grow at a CAGR of 8% & 15.5% respectively during 2010-13: Global Biofuel Market Analysis by RNCOS

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/biofuel-production-on-upward-curve-research-shows.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/biofuel-production-on-upward-curve-research-shows.html)

# Finance & Investments - GLOBAL

## North America

### Promise of clean power

[www.businessmirror.com.ph/index.php?option=com\\_content&view=article&id=27507:promise-of-clean-power&catid=34:perspective&Itemid=62](http://www.businessmirror.com.ph/index.php?option=com_content&view=article&id=27507:promise-of-clean-power&catid=34:perspective&Itemid=62)

“Annual investments in global RE markets could reach \$106bn to \$230bn a year in 2020, and as much as \$424bn a year in 2030 & cumulative global investment to deploy needed low-carbon technologies could reach nearly \$2.2tn.” (Deputy Director of the IEA Ambassador Richard Jones)

“Accordingly to the Accumulative investment of between \$7tn and \$9.7tn in the energy sector is needed to meet the energy demand growth in Asia and the Pacific.” (ADB)

### Ceres completes new round of financing to expand advanced biofuel & biomass to power markets

[http://www.businesswire.com/portal/site/home/permalink?ndmViewId=news\\_view&newsId=20100708005331&newsLang=en](http://www.businesswire.com/portal/site/home/permalink?ndmViewId=news_view&newsId=20100708005331&newsLang=en)

### Texas to create \$8.4mn RE institute

<http://www.wisconsinagconnection.com/sto-ry-national.php?ld=1511&yr=2010>

### Hawaii-based Ulupono Initiative invests in ClearFuels for its biofuel projects

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/biofuel-developer-clearfuels-secures-capital-from-ulupono-initiative-in-hawaii.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/biofuel-developer-clearfuels-secures-capital-from-ulupono-initiative-in-hawaii.html)

## Europe

### Institutional investors looking at Green Private Equity & Venture Capital

<http://www.prnewswire.com/news-releases/institutional-investors-increasingly-looking-at-green-private-equity-and-venture-capital-according-to-new-survey-98787714.html>

## Africa

### Clean energy projects in Sub-Saharan Africa

[www.worldofrenewables.com/renewables\\_news/carbon\\_emissions/international\\_funds\\_for\\_low\\_carbon\\_technologies\\_poised\\_to\\_facilitate.html](http://www.worldofrenewables.com/renewables_news/carbon_emissions/international_funds_for_low_carbon_technologies_poised_to_facilitate.html)

As per new analysis from Frost & Sullivan, the sub-Saharan African market for clean energy projects has more than \$200mn in financing available from private investors.

## Other Countries

### S.Korea industries to invest \$18.5bn in clean energy project by 2013

<http://www.bloomberg.com/news/2010-07-13/south-korea-industries-to-invest-18-5-billion-in-clean-energy-projects.html>

### China can invest \$20bn in overseas RE markets

<http://www.renewableenergyfocus.com/view/11014/china-could-invest-20b-in-renewable-energy-overseas/>

## North America

### ExxonMobil and Synthetic Genomics open greenhouse facility to research and test their algae biofuel programme

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/biofuel\\_biomass/exxonmobil-and-synthetic-genomics-unveil-algae-biofuel-test-facility.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/exxonmobil-and-synthetic-genomics-unveil-algae-biofuel-test-facility.html)

### OriginOil has developed a hydrogen Harvester to extract H<sub>2</sub> from algae

[http://www.biodieselmagazine.com/article.jsp?article\\_id=4268](http://www.biodieselmagazine.com/article.jsp?article_id=4268)

### Canadian Research Project to build Green Powered Data Center Grid to reduce rising carbon emissions

[http://www.thewhir.com/web-hosting-news/072910\\_Canadian\\_Research\\_Project\\_Aims\\_to\\_Build\\_Green\\_Powered\\_Data\\_Center\\_Grid](http://www.thewhir.com/web-hosting-news/072910_Canadian_Research_Project_Aims_to_Build_Green_Powered_Data_Center_Grid)

### MSU opens new Anaerobic Digestion Research & Education facility to convert waste into resources

<http://mobile.michiganfarmer.com/main.aspx?ascxid=cmsNewsStory&rmid=0&rascxid=&args=&rargs=9&dt=634152704441744000&lid=a8yebu2d9qxnz7lo&adms=634152704440184000Xf204d974eb&cmsSid=40244&cmsScid=9>

### Siemens awarded \$8.9m to demonstrate energy efficient carbon capture technology

[http://www.newenergyworldnetwork.com/renewable-energy-news/by\\_technology/energy\\_efficiency/siemens-awarded-8-9m-to-demonstrate-energy-efficient-carbon-capture-technology.html](http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/siemens-awarded-8-9m-to-demonstrate-energy-efficient-carbon-capture-technology.html)

Siemens has been awarded an \$8.9m grant by the US DoE to build its first carbon capture project for coal-fired power plants for reducing the large amounts of energy traditionally needed.

## Africa

### Germany to set up a science centre in Ghana to mitigate the effects of climate change in West African countries

<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=187147>

The German Government is to set up a science centre in Ghana.

## Latin America

### Purdue researchers develop biofuel process

[http://www.biomassmagazine.com/article.jsp?article\\_id=3957](http://www.biomassmagazine.com/article.jsp?article_id=3957)

## Other Countries

### Lanza Technology to develop fuels from industrial waste gases using bacteria

<http://tandnews.com.au/2010/07/15/article/NZ-technology-turns-steel-mill-emissions-into-fuel/MAUNJOBLOLON.html>

# Climate Change & Environment

## India

India will take up lead role on Global Carbon Budget provided the principle of equity is maintained: Jairam Ramesh

<http://timesofindia.indiatimes.com/india/India-will-take-up-lead-role-on-global-carbon-budget-Ramesh/articleshow/6101821.cms>

Sea levels rising in parts of Indian Ocean: Experts

<http://timesofindia.indiatimes.com/home/environment/global-warming/Sea-levels-rising-in-parts-of-Indian-Ocean-Experts/articleshow/6166321.cms>

CII, ICFI draw road map for states to fight climate change

<http://in.news.yahoo.com/241/20100710/1257/tnl-cii-icfi-draw-road-map-for-states-to.html>

Pune plans to calculate, offset carbon footprint

<http://timesofindia.indiatimes.com/city/pune/City-plans-to-calculate-offs-carbon-footprint-/articleshow/6229840.cms>

India and UK to collaborate on climate change

<http://www.hindustantimes.com/India-and-UK-to-collaborate-on-climate-change/Article1-579653.aspx>

## North America

UN panel seeks financing sources to offset climate change

<http://www1.voanews.com/english/news/africa/UN-Panel-Seeks-Financing-Sources-to-Offset-Climate-Change-98355189.html>

## Europe

EU should help economic assessment of forestry's role in combating climate change: The British House of Lords Sub-Committee on Agriculture, Fisheries & Environment

<http://enviroireland.com/?p=743>

## Latin America

Black carbon implicated in global warming: Study by University of Iowa

<http://www.physorg.com/news199632687.html>

## Other Countries

Nepal to host International Climate Change meeting in October

[http://news.xinhuanet.com/english2010/sci/2010-07/14/c\\_13399420.htm](http://news.xinhuanet.com/english2010/sci/2010-07/14/c_13399420.htm)

### 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

# ENABLING GREEN ENERGY ACCESS

## Abellon CleanEnergy

*An integrated sustainable energy solutions provider with a vision to contribute to clean energy generation through focus on bio energy, including bio pellets, bio fuels, bio power, and other forms of clean energy generation.*

### PELLEXO

#### Eco friendly, carbon neutral, biomass pellets

- An efficient replacement to fossil energy
- Industrial as well as residential application



### ABELLON POWER

#### A high potential alternative

- Biomass based Power Plants
- Power Trading



### WASTE MANAGEMENT



#### Integrated model for waste management

- Innovation led holistic approach
- End to end waste management value chain

### AGRISCIENCES



#### Research & Innovation led initiative with a vision to upscale agri-sector

- Social Forestry
- Biotechnological Research and Plant Breeding

### RESEARCH & DEVELOPMENT

#### Dedicated R&D for value chain technologies in the field of Bio-Energy

- Biomass characterization & pre-treatment technologies
- Carbon sequestration
- Biofuels



### ECO-CHULHA

#### Community cooking solution

- Energy efficient
- Health and safety
- Environmental protection

