

Climate Change & Environment

India

EU-India to work on climate change to achieve specific result at UN climate change summit at Mexico

<http://www.thehindubusinessline.com/2010/04/10/stories/2010041052010700.htm>

Europe

UK hosts UN's Climate Finance meeting to kick-start global climate deal

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/uk-hosts-un%e2%80%99s-climate-finance-meeting-to-kick-start-global-climate-deal.html

UN's Bonn climate talks result in strategy for year ahead

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/un%e2%80%99s-bonn-climate-talks-result-in-strategy-for-year-ahead.html

Despite continued rifts between developed and developing nations, the UN's latest round of 3-day, 194-nation climate talks in Bonn, Germany have resulted in a clear strategy of how to move talks forward. In addition to the negotiating sessions already scheduled for 2010, governments decided to hold 2 additional sessions of at least one week each at the 32nd session of the UNFCCC Convention subsidiary bodies from 31 May to 11 June 2010 and the UN Climate Change Conference in Mexico from 29 November to 10 December 2010.

Climate research needs to be more open: UK 'climategate' inquiry

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/climate-research-needs-to-be-more-open-uk-%e2%80%98climategate%e2%80%99-inquiry-says.html

Other Countries

Integration, climate change East Asian priorities: World Bank

<http://australianetworknews.com/stories/201004/2867277.htm?desktop>

Anti-poverty, climate-change groups want action at upcoming G8 summit

http://www.google.com/hostednews/canadianpress/article/ALeqM5hq2IUU-kWai00DyKXxds7blmc_IQ

Singh, Hu talked trade, climate change on sidelines of BRIC summit

<http://timesofindia.indiatimes.com/india/Singh-Hu-talk-trade-climate-change-on-sidelines-of-BRIC-summit/articleshow/5813580.cms>

BASIC countries want legally binding climate change agreement

<http://blog.taragana.com/science/2010/04/26/basic-countries-want-legally-binding-climate-change-agreement-11592/>

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



HIGHLIGHTS

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Dear Readers,

On the 22nd of April, 2010, over a billion people from 190 countries came together on the 40th Anniversary of Global Earth Day - a powerful expression of solidarity in the fight against climate change. This global phenomena is an indicator of the tremendous awareness and desire to contribute in people all over the world. This is an event that is sure to hearten the spirits of policy makers, as they endeavour to unite nations in putting up a strong front in the face of this growing global concern.

At a policy level, two key developments included. An inaugural meeting for the UN's Climate Finance Group, which was held in London to examine how \$100 bn could be raised annually by 2020 to support developing countries in terms of Climate Aid. This was followed by the UN Climate Talks held at Bonn, Germany from 9th to 11th April '10, during which the European Commission launched a €35 mn call for eco-innovation projects to fund projects in recycling, sustainable building products & green business practices. Other areas including protection of tropical forests and new clean technologies were also emphasized.

The Bio-Energy Times team endeavours to bring you such developments and updates on clean energy with every issue. We thank you for your support and encouragement and hope you find this publication useful and informative.

Thank You.

Please post your feedback on Bio-Energy Times @ <http://www.bioenergyindia.org/frmsendnewsfeedback.aspx>

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Policy Initiatives - INDIA

India to add renewable power ability

http://online.wsj.com/article/SB10001424052702303666304575165141682136062.html?mod=WSJ_latestheadlines

According to Chairman of India's Renewable Energy Development Agency,

- To add renewable power ability, the agency is likely to sanction loans of Rs 50 bn (\$1.1 bn) during 2010-2011, up from Rs 20 bn in 2009-2010.
- India is likely to add over 3,000 MW of RE-based capacity including biomass, wind and small-scale hydroelectric projects in the current year, against about 2,000 MW the previous year.

To cut dependence on coal and combat climate change, India's latest 5-year plan, which ends in March 2012, calls for addition of 12,000 MW of RE-based generation capacity. New policies and tariff regulations should result in rise of at least 50% of RE capacity being connected to the grid.

India fixes ethanol price for 6 months

http://www.newenergyworldnetwork.com/renewable-energy-news/biofuel/biofuel_biomass/india-fixes-ethanol-price-for-six-months.html

The price of ethanol in India has been fixed for 6 months to appease manufacturers who have been calling for a 3-year minimum guarantee. Manufacturers said they will commit to meet the target of producing 800 mn litres for a 5% blending level and agreed to pay a penalty for default in supply.

Lack of raw material, govt pricing dash biofuel dreams

<http://www.business-standard.com/india/news/lackraw-material-govt-pricing-dash-biofuel-dreams/391105/>

The biofuel industry is finding it tough to remain in business, with both government pricing and raw material availability working against them.

India threatens to move WTO on carbon tax issue

<http://www.thehindubusinessline.com/2010/03/29/stories/2010032952450100.htm>

Environment Minister Mr Jairam Ramesh has warned that India could exercise the option of moving the WTO Dispute Settlement Body if the EU and the US impose carbon tax on Indian exports. He said that such barriers would not be WTO-compatible and India will deal with it through hard negotiations.

Carbon tax is an environmental tax on carbon emissions. However, the EU and the US have been threatening to use carbon tax on exports from developing countries under the guise of controlling emissions. India had opposed attempts by the rich nations to mix trade and climate matters.

Fast Facts

1 ^{fact}

Earth's global temperatures are 30-50% more sensitive to CO₂ emissions in long term than previously stated. If previous temperature predictions were for a 3° C temperature increase, then the recent work suggests the real long-term increase will actually be between 3.5 and 4.5 degrees.

(According to the latest study led by Dan J Lunt, from the University of Bristol; Published in the journal 'Nature Geosciences')

Policy Initiatives - GLOBAL

North America

DoE to fund \$37.5m over 5 years to US-China Clean Energy Research Center

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/doe-canvases-375m-over-five-years-for-us-chinese-clean-energy-research.html

Grantees will need to generate \$75m to support advanced technologies research for energy efficiency, clean vehicles and CCS. China will contribute \$75m to the CERC for a virtual research centre located in existing facilities in the US and China. DoE will provide one award each for building efficiency, clean vehicles and CCS for coal. Universities, national labs, private companies and other relevant entities are eligible to apply for grants until 14 May 2010, with the DoE expecting to select awardees this summer.

DoE & Masdar sign biofuels, cleantech accord

<http://biofuelsdigest.com/bdigest/2010/04/29/doe-and-uaes-masdar-sign-biofuels-cleantech-accord/>

The DoE and Masdar have signed an MoU to establish a framework for cooperation in 3 key areas – CCS, water and bio-fuels & building technology. The duo have agreed for scientific and technical exchanges and joint R&D on clean energy technologies.

Hawaiian Commercial & Sugar Company, University of Hawaii receive \$4m

http://www.newenergyworldnetwork.com/renewable-energy-news/by_region/north_america/hawaiian-commercial-sugar-company-and-the-university-of-hawaii-receive-4m-to-develop-biofuels.html

Hawaiian Commercial & Sugar Company (HC&S) will work with University of Hawaii and various federal agencies on new Hawaii-based research initiatives on biofuels. HC&S will receive annual dedicated federal funding of at least \$4m through 2 separate programmes: one, funded by the DoE (\$2 mn) and the other by the US Navy's Office of Naval Research (\$2mn). USDA will direct research and provide \$2m annually through 2015 to help Hawaii speed up sustainable biofuel feedstock production.

Pepco gets \$168m from US DoE

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/pepco-gets-168m-from-us-department-of-energy-to-develop-smart-grid.html

Pepco Holdings will receive \$168.1m DoE grant to develop smart grid projects. Out of the full grant, \$104.8m will go for smart grid projects in Maryland, \$44.6m will be used for Columbia and \$18.7 will be allocated to Atlantic City Electric for its smart grid projects.

Berkeley to build advanced biofuels facility

<http://www.thebioenergysite.com/news/5895/berkeley-to-build-doe-advanced-biofuels-facility>

The Lawrence Berkeley National Laboratory will receive nearly \$18 mn from the Recovery Act to build an advanced biofuels process development facility that will help ease the commercialisation of next generation biofuels by providing industry-scale test beds.

ClearFuels Technology wins \$22.6M

http://www.starbulletin.com/business/20100416_Aiea_company_wins_226M_for_biomass_project.html

ClearFuels has won a \$22.6 mn grant from DoE and will receive an initial \$7.7 mn for the project to integrate ClearFuels' and Rentech's low-cost production technologies for renewable diesel & jet fuel from clean biomass. The project will be completed in late 2011.

NextCAT receives \$115,000 in total via Michigan Microloan Fund Program to commercialize heterogenous catalysts to produce biodiesel

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/us-biofuel-developer-nextcat-receives-michigan-state-funding-to-commercialise-catalysts.html

RFA offers RFS2 checklist/guidelines

http://www.biomassmagazine.com/article.jsp?article_id=3637

Policy Initiatives - GLOBAL

New Rules for RE Programmes

<http://www.thebioenergysite.com/news/6000/new-rules-for-renewable-energy-programmes>

Agriculture Secretary Tom Vilsack has called for public comment on several proposed rules designed to increase the production of advanced biofuels and the development of biorefineries. Proposed rules affect the following 3 RE programs administered by USDA Rural Development:

Biorefinery Assistance Programme - *The maximum loan amount will be \$250 mn; there is no minimum amount. The amount of a loan guarantee for a project will not exceed 80% of total eligible project costs.*

Repowering Assistance Payments - *USDA Rural Development will propose procedures for eligible biorefineries to receive payment equal to 50% of cost of installing eligible systems, up to \$5 mn, whichever is less. There is no minimum payment amount. The initial payment would be a percentage of cost of installing eligible systems and the remaining payment would be based on the amount of energy produced from renewable biomass.*

Bioenergy Program for Advanced Biofuels - *USDA Rural Development is proposing to establish a payment programme for eligible producers of advanced biofuels. To be eligible for payments, advanced biofuels must be produced from renewable biomass, excluding corn kernel starch. USDA would enter into contracts with advanced biofuels producers to support and ensure an expanding production of advanced biofuels.*

USDA and Navy Encourage Use of RE

<http://www.thebioenergysite.com/news/5920/usda-and-navy-encourage-use-of-renewable-energy>

Agriculture Deputy Secretary Kathleen Merrigan and Assistant Secretary of the Navy for Energy, Installations & Environment Jackalyn Pfannenstiel have kicked off the first of several energy forums to help increase biofuels production and meet the Navy's RE needs. The forum follows the MoU between the USDA and the Department of the Navy (DON) to develop advanced biofuels and other RE systems. DON announced 5 ambitious energy targets for the Navy and Marine Corps and biofuels are a major component of four of those goals.

Biodiesel interests want retroactive extension of tax incentive

http://www.biomassmagazine.com/article.jsp?article_id=3656

Alberta extends Bioenergy Producer Credit programme till 2016 to meet its ERTs and to support agriculture and forestry sector

<http://www.thebioenergysite.com/news/5858/alberta-increases-support-for-clean-energy>

A bill to extend \$1-a-gallon Biofuels Tax Credit until 2016

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/biofuels-tax-credit-bill-brought-before-us-gov-ernment.html

California launches \$35.2m Cash for Appliances Program

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-state-of-california-launches-352m-cash-for-appliances-programme.html

TDA seeks bioenergy proposals

http://www.biomassmagazine.com/article.jsp?article_id=3646

Texas Department of Agriculture is requesting proposals from entities to conduct a comprehensive bioenergy study to provide an in-depth review of the capabilities and challenges of its bio-energy industry. The study will include bioenergy feedstocks; logistical challenges related to production & transport and integration of bioenergy to meet state's energy demands.

Policy Initiatives - GLOBAL

Forest Biomass Initiative pilot projects receive stimulus loans and grants

http://www.dnr.wa.gov/BusinessPermits/News/Pages/2010_03_30_biomass_grants_nr.aspx

Governor Chris Gregoire and the Washington State Department of Commerce announced recipients of grants and loans from the American Recovery and Reinvestment Act that included 2 of the Washington State Department of Natural Resources' Forest Biomass Initiative pilot projects. Of the \$16.5 mn total awarded, Borgford Bioenergy in Stevens County was awarded \$771,406 and Nippon Paper Industries in Clallam County was awarded \$2 mn. Borgford Bioenergy will utilize the funds for gasification of woodwaste to produce biopower and biochar. Nippon will replace an existing process steam boiler with a new forest biomass boiler and add a 20 MW condensing turbine-generator.

EPA to regulate GHG emissions from vehicles

http://www.ethanolproducer.com/article.jsp?article_id=6492

The US EPA and the Dept of Transportation's National Highway Traffic Safety Administration launches a program to regulate GHG emissions from light duty vehicles. The joint final rule will be applied to vehicle models from 2012 to 2016, specifically all passenger cars, light-duty trucks & medium-duty passenger vehicles. The standards will cut emissions by about 960 mn metric tons. Cut in oil consumption will be at 1.8 bn barrels over the lifetime of the vehicles. EPA estimates net benefit of \$190 bn due to reduced gasoline use & lower emissions.

US stresses federal commitment to combat climate change ahead of new energy bill

<http://www.newenergyworldnetwork.com/alternative-energy-knowledge-bank/us-stresses-federal-commitment-to-combating-climate-change-ahead-of-new-bill.html>

US GHG drop, emissions rules stall

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-greenhouse-gases-drop-emission-s-rules-stall.html

According to the US EPA, US GHG emissions dropped by 2.9% from 2007 to 2008. The downward trend in CO₂ emissions is associated with fuel and energy consumption. Despite this being a decrease over the previous year's figure, emissions are still 13.5% higher than they were in 1990. However, rules on how much factories and power plants can emit may not be released until May.

Carbon emissions regulations to be phased in from 2011: US EPA

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/carbon-emissions-regulations-to-be-phased-in-from-2011-us-environmental-protection-agency-says.html

US military at forefront of clean energy deployment: Pew Trust

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-military-at-forefront-of-clean-energy-deployment-says-pew-trust.html

According to the Pew Charitable Trust's Reenergizing America's Defense report, US defense forces are embracing clean energy sources but a strong policy framework is needed to put a price on carbon and help renewable technologies on a greater scale. US military uses 80% of all energy consumed by the US Govt, is leading in deployment of clean energy sources and has initiated ambitious clean energy programs. US Defense Secretary Robert Gates has previously identified energy as one of the military's top-25 transformational priorities, with a goal of producing or procuring 25% of its electric energy needs from RE sources by 2025. The US Department of Defense has an annual budget of \$20bn and incurs more than \$1.3bn in additional energy costs for every \$10 increase in oil barrel price.

Obama: Biofuels critical to US national security

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/obama-says-biofuels-critical-to-us-national-security.html

US senators: New climate change bill

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-senators-join-to-propose-new-climate-change-bill.html

Policy Initiatives - GLOBAL

DNV develops breakthrough guideline for CCS - CO2QUALSTORE Guideline for Selection, Characterisation and Qualification of Sites and Projects for Geological Storage of CO₂

http://ae-africa.com/read_article.php?NID=1933

The World Bank pushes the US to support the \$3.75 bn loan requested by S.Africa's state-owned utility Eskom to help with its power generation struggle

http://ae-africa.com/read_article.php?NID=1910

World Bank member IFC issues \$200m green bond

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/world-bank-member-ifc-issues-200m-green-bond.html

World Bank member IFC has issued its inaugural, \$200m, 4-year, fixed-rate green bond which will be managed by European financial group SEB. It will support climate-friendly projects in developing countries. Proceeds from the bond will be set aside in a separate 'green account' for investing exclusively in RE. Target projects may include rehabilitation of power plants and transmission facilities to reduce GHG emissions and new technologies ensuring significant reductions in GHG emissions.

Canadian Govt delivers energy loans for farmers

<http://www.thebioenergysite.com/news/5611/canadian-govt-delivers-energy-loans-for-farmers>

The Farm Credit Canada (FCC) - has been announced by Canada's Agriculture Minister Gerry Ritz to help Canadian agriculture producers and agribusiness operators for purchasing and installing on-farm RE sources like biogas, geo-thermal, wind or solar power.

Ontario is investing \$4 mn through the Innovation Demonstration Fund to help Woodland Biofuels Inc. build a demo plant to produce cellulosic ethanol from renewable wastes

<http://www.thebioenergysite.com/news/5944/ontario-awards-woodland-biofuels-c4-mn>

Europe

UK plans £6.5bn increase to economy through CCS

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/european-biofuel-policy-discriminates-against-palm-oil-says-globecon.html

A new study by independent German research institute GlobEcon, "European Policies Towards Palm Oil: Sorting Out Some Facts" says that the Renewable Energy Directive intentionally discriminates against palm oil produced outside the EU region, such as Asian palm oil, by embedding protectionist measures into the directive that set unfair values on GHG savings for foreign biofuels, precluding market access.

UK energy trade associations to lobby Govt into meeting targets

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/solar-by_technology-new-news/uk-energy-trade-associations-join-to-lobby-government-into-meeting-targets.html

UK's Conservatives unveil pledges for urgent energy reform

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/water/uk%e2%80%99s-conservatives-unveil-pledges-for-urgent-energy-reform-welcomed-by-industry.html

Clean Energy Cashback Scheme of the UK - a Natural FIT

<http://www.thebioenergysite.com/news/5901/clean-energy-cashback-scheme-a-natural-fit>

Policy Initiatives - GLOBAL

REA reveals proposals for inclusion in DECC consultation on biomass financing

<http://www.mrw.co.uk/page.cfm/action=Archive/ArchiveID=26/EntryID=6455>

The proposals set to be included in the Department of Energy and Climate Change (DECC) consultation on financing of RE plants have been revealed by the Renewable Energy Association (REA). The proposals will be as follows:

- Energy from waste and anaerobic digestion will be grandfathered in the pure sense
- For biomass, capital costs will be grandfathered, but the fuel element can change at future banding reviews
- More evidence is needed on what part of the 1.5 ROCs/MWh or 2/MWh could be accounted for by capital element

EU Commission plans raft of energy and climate initiatives for 2011

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/eu-commission-plans-raft-of-energy-and-climate-initiatives-by-2011-end.html

The European Commission has stressed the need to implement clean energy initiatives before end-2011. One of the commission's key strategic initiatives to be completed by end-2010 is an Energy Infrastructure Package (EIP), which will incorporate -

- *A plan for energy infrastructure development and financing for the 2020 and 2030 horizon*
- *A working paper on energy infrastructure*
- *The preparation of a blue print for offshore grids in the northern seas of Europe*
- *A smart grid report leading to a possible legislative proposal in 2011.*

EREC calls for EU to use 100% RE by 2050

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/erec-calls-for-eu-to-use-100-per-cent-renewable-energy-by-2050.html

As published in "RE-thinking 2050 - A 100 per cent Renewable Energy Vision for the European Union", the European Renewable Energy Council has called for the EU to derive 100% of its energy from RE sources by 2050. The EU has previously assessed scenarios where up to 80% of the continent's energy is derived from RE sources which is technically feasible with compelling economic sense. The resulting benefit would be equivalent to a lower total cost of energy of €350bn/year by 2050. By investing in energy efficiency, RE, smart grids and CCS, unit costs of electricity would rise by 10-15% by 2050, but the overall cost of energy would fall by 20-30%. (The European Climate Foundation).

Carbon emissions in the EU's Cap and Trade Emissions Scheme dropped by 11.2% in 2009

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/eu-emissions-drop-11-per-cent-data-shows.html

Africa

Comprehensive blueprint for development of nation's power sector: Nigeria

http://ae-africa.com/read_article.php?NID=1973

Business & Markets - INDIA

Ankit to open a 200 000 t/y pellets plant in Tumkur, India

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35927&-find=>

Indian briquet producer Ankit Group is opening a pellets plant in Siddaramanagara, close to Tumkur, 60 km south of Bengaluru in southern India. The plant capacity will be 600 t/day and is expected to reach 200 000 tons/year. Raw material will be coconut wood as has been used in the trial pilot plant supplied by Amandus Kahl Group.

India able to utilise only 35% of biomass energy potential and has future potential for almost 12 mn biomass plants

<http://www.earthtimes.org/articles/show/research-and-markets-india-has-1249568.shtml>

VIASPACE: major market for giant king grass in India

<http://www.prnewswire.com/news-releases/viaspace-sees-major-market-for-giant-king-grass-in-india-89986187.html>

IOC to market bio-lubricant

<http://www.business-standard.com/india/news/ioc-to-market-bio-lubricant-next-year/392700/>

Next year, IOC will launch its 1st biodegradable lubricant to be used in agricultural and forest machinery, and the transport sector. It is also conducting research on diesel from algae and will shortly commission a project at its Faridabad centre to install technology for coal gassification and production of ethanol from biomass.

5 agreements signed between organisations in Pune and Belgium including clean energy sector

<http://timesofindia.indiatimes.com/city/pune/City-firms-sign-5-agreements-with-Belgian-cos/articleshow/5720450.cms>

GM to develop India biofuel project

<http://in.reuters.com/article/businessNews/idINIndia-47336320100330>

GM and US DoE will develop a 5-year jatropha-to-biodiesel project in India, under which 2 jatropha farms will be established.

EU demand, Renewables to sustain India Carbon Market

http://online.wsj.com/article/SB10001424052702304024604575173202527712236.html?mod=googlenews_wsj

Projects to cut India's emissions growth remain popular with local investors and European companies hungry for carbon credits, despite the cloudy outlook for the global carbon market beyond 2012. India generates more carbon credits than any country other than China.

NTPC plans to have at least 1,000 MW through RE by 2017

<http://economictimes.indiatimes.com/news/news-by-industry/energy/power/NTPC-FY10-net-up-56-to-Rs-8657-cr/articleshow/5850954.cms>

Jatropha JV in UP

<http://www.thebioenergysite.com/news/5854/jatropha-joint-venture-in-uttar-pradesh>

Ruchi Soya Industries Ltd and IOC will develop jatropha in Uttar Pradesh to produce biodiesel, under a separate Rs 436.63 bn JV company, IndianOil-Ruchi Biofuels LLP, which will plant 50,000 hectares of Jatropha in the districts of Jhansi and Lalitpur. A major part of the project will be funded by the UP Govt.

IDFC and IDEACarbon form alliance to aid growth of Indian carbon market

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/idfc-and-ideacarbon-form-alliance-to-aid-growth-of-indian-carbon-market.html

Both will jointly encourage rating of environmental assets by market participants and develop products to help structured growth of the Indian carbon market. IDEACarbon owns The Carbon Rating Agency and has created efficiency measures for global carbon market.

Business & Markets - GLOBAL

North America

Point Bio Energy LLC will build \$100 mn wood pellet plant in Louisiana

http://www.biomassmagazine.com/article.jsp?article_id=3671

The plant will produce 450,000 metric tons/year of wood pellets from locally sourced woody biomass as well as wood delivered by barge from other locations on the Mississippi, Atchafalaya and Red rivers, and the Intracoastal Waterway through existing barge unloading facilities. Point Energy plans to ship the pellets to Europe. Construction will begin this summer. Production will commence in Q42011.

Intrinergy looks at wood pellet plants in Virginia. Each plant could be an investment of between \$15 mn - \$50 mn

<http://www.richmondbizsense.com/2010/04/07/alternative-energy-firm-has-alternative-expansion-plans/>

Kirkfield-area facility to produce 60,000 tons of pellets using wood waste for Ontario market

<http://www.thepost.ca/ArticleDisplay.aspx?e=2498639>

Klamath Falls Bioenergy builds 35MW bio-energy plant using wood waste

<http://www.kmed.com/pages/landing?4-14-10-BELLVIEW-WA-COMPANY-LOOKING-TO-B=1&blockID=215910&feedID=133>

29MW biomass plant at Green Mountain Energy Park Vermont

<http://www.thebioenergysite.com/news/6025/biomass-plant-for-energy-park>

Koochiching Economic Development Authority (KEDA) assembles biomass working group

http://www.biomassmagazine.com/article.jsp?article_id=3636

NRG Energy secures 10-year New York State contract

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/us-biomass-company-nrg-energy-secures-10-year-new-york-state-contract.html

New York State Energy Research and Development Authority has awarded NRG Energy with a power generation contract from co-firing of traditional fuel with clean wood biomass at its Dunkirk Generating Station in New York. The project is to be up by end-2011 and will produce upto 15MW.

TCL&P votes yes on biomass plant

http://www.biomassmagazine.com/article.jsp?article_id=3670

Traverse City, Mich. will see a 10-MW, \$40 mn CHP biomass plant after approval from Traverse City Light & Power board. Annually about 100,000 tons of wood chips will be used. TCL&P, says that biomass will allow the highest efficiency for the plant, at about 75-80%.

New \$5.8 mn, CHP biomass plant at Green Mountain College (GMC)

<http://www.thebioenergysite.com/news/5971/new-biomass-plant-for-green-mountain-college>

The plant will burn about 4,000-5,000 tons of locally harvested woodchips annually and will provide 85% of the school's heat and generate 20% of its electricity. Net GHG emissions on campus will be reduced from 2007 levels of 3420 metric tons to 546 metric tons of CO₂ equivalent/year.

Business & Markets - GLOBAL

Rollcast with biopower in Georgia, SC

http://www.biomassmagazine.com/article.jsp?article_id=3674

A biomass power plant by Rollcast Energy will be up in 2012 to power 40,000 homes in Barnesville, Ga. The 53.5MW Piedmont Green Power project will burn about 500,000 tons of wood waste/year including logging residue and urban wood waste. Other similar projects will be near Franklin, Ga. and near Newberry, S.C.

North Dakota to host ethanol plant

http://www.biomassmagazine.com/article.jsp?article_id=3639

Great River Energy wants to co-locate Dakota Spirit AgEnergy LLC, a proposed 20 MMgy cellulosic ethanol plant, with a coal-fired power plant currently under construction to use lignin created at the ethanol plant to supplement coal at the power plant and to power the ethanol plant with steam from the power plant.

Poet plans to add 3.5 bn gallons of cellulosic ethanol by 2022

http://www.biomassmagazine.com/article.jsp?article_id=3673

Envirotek's Extreme Biodiesel division - GFE Global: A partnership to help GFE's plan to establish global jatropha plantations

http://www.biodieselmagazine.com/article.jsp?article_id=4123

Ontario plant up, production to follow

http://www.ethanolproducer.com/article.jsp?article_id=6486

Construction at \$47 mn Kawartha Ethanol Inc., an ethanol plant near Havelock, Ontario, is complete. The plant, when fully operational, will produce nearly 21 MMgy of corn based ethanol.

California-based LS9 gets U.S. EPA registration for its UltraClean Diesel

<http://cleantech.com/news/5770/ls9-gets-us-epa-registration-diesel>

Long-term price increase for wood biomass market

<http://www.earthtimes.org/articles/show/forest-economic-advisors-predicts-long-term,1223791.shtml>

According to a new report by Forest Economic Advisors, near-term downturn in biomass prices will be followed by long-term price increases after 2012. Key predictions by FEA include:

- *Production of wood-based energy will resume its growth in 2010 & will continue to grow through 2024. Growth will continue in bioenergy from wood pellets, biopower and biofuels, and also from traditional forest products companies.*
- *The added demand for biomass supplies will force increased extraction of logging residues and intensified use of roundwood. While prices will ease in the short term, all biomass grades will experience price increases after 2012. A developed and diversified wood-based energy sector will have a profound impact on the economics of the entire forest products industry.*
- *Mill residue supplies available for bioenergy will grow by 5.4 mn oven-dry tons from 2009 to 2012. Wood pellet production will continue to rise at a rapid pace, due to rising demand. Biopower generation will also grow.*
- *Biofuel production will be a key consumer of wood biomass over the long-term, though not until commercial scale application of next-gen technologies.*

US East Coast business cluster offers proposition to RE sector

<http://www.newenergyworldnetwork.com/cleantech-features/us-east-coast-business-cluster-offers-appealing-proposition-to-renewable-energy-technology-sector.html>

Skyonic starts operations at carbon mineralization demo facility

www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-carbon-capture-developer-skyonic-starts-operations-at-carbon-mineralisation-demonstration-facility.html

Ontario Government awards 184 contract offers for almost 2,500 MW of RE

<http://www.thebioenergysite.com/news/5982/largescale-renewable-energy-projects-for-ontario>

Business & Markets - GLOBAL

Biomass for energy now 75 mns tons in world pulp and paper industry

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35923&-find=>

According to Wood Resource Quarterly,

- The global pulp and paper industry has increased its use of woody biomass for energy in the past few years. Since 2006, energy generated from biomass has gone up over 50%, with last year accounting for 18% of total energy consumption by the industry. As a percentage of total energy usage, the share of energy generated from biomass has, on a global basis, increased from 16% (2006) to 18% (2009).
- Pulp and paper manufacturers worldwide consumed 75 mn tons of woody biomass - equivalent to approximately 1400 trillion BTU - for energy in 2009. Numerous pulp and paper plants have invested in technologies to make the switch from fossil fuels to woody biomass fuels.
- Global consumption of biomass rose by 51% between 2006-09. [FisherSolve™ (Fisher International)].
- While the biggest increases have occurred in Latin America and Asia/Oceania, mills in North America and Europe are still the largest users of biomass material. Pulp and paper mills in Latin America and Asia/Oceania are generally less reliant on purchased biomass than Europe and North America.
- Leading biomass-consuming countries by volume are Canada, the US, Brazil and Sweden. Pulp mills in Finland, New Zealand, Australia, France and Germany have consumed fairly small volumes of biomass until now. Norway and Sweden took the lead in biomass usage at 42% and 38%, respectively, followed by Canada, Brazil and New Zealand.
- With increased usage of bark and wood fiber for energy, pulp mills have expanded their external sourcing of biomass. In 2006, 53% woody biomass was purchased in the open market, which went up to 69% in 2009.

RE constitutes 10% of US power mix: EIA

<http://www.newenergyworldnetwork.com/renewable-energy-news/renewable-energy-constitutes-10-per-cent-of-us-power-mix-eia-says.html>

According to the Energy Information Administration,

- RE provided more than 10% of US energy production in 2009, an increase of 5.5% over 2008. RE sources including bioenergy, geothermal, solar, wind and water power, provided 7.833 quadrillion Btus in 2009, which totaled an increase of over 5% on 2008 figures and nearly 16% on 2007. The largest single energy source was biomass, which accounted for 51% of RE production.
- The contribution of RE to the nation's domestic energy production is now almost equal to that provided by nuclear power. Growth in renewables has been coupled with a decline of nuclear power with it declining by 1.2% from its 2008 level.
- The amount of electricity actually generated from non-hydro renewables in 2009 increased by 11.81% over 2008 levels and by 34.09% over 2007 levels.

Europe

Ystad Pellets AB starts production at 80000 t/y pellet plant located at the port of Ystad, Sweden; pellets to be purchased by energy utility Fortum

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35906&-find=>

International Paper mill, Inverurie to turn into a £60m green energy centre

http://news.bbc.co.uk/2/hi/uk_news/scotland/north_east/8591773.stm

The biomass-fueled plant is expected to occupy about 70% of the site and will process timber.

Business & Markets - GLOBAL

Pellets market developments in the Netherlands

<http://pellets-wood.com/pellets-market-developments-in-the-netherlands-o4144.html>

According to industry experts,

- Due to limited availability of raw material in Netherlands, it is doubtful that domestic pellets manufacturing will grow significantly within next few years. However, considering the Dutch government's ambitions in terms of renewable power (20% by the end of 2020), the country will import biomass to meet these guidelines.
- Pellets may become a strategic alternative due to significant coal price fluctuation within past few years and the possibility of change in the amount of wood pellets used for co-firing.
- Rotterdam, Amsterdam, Flushing and Delfzijl/Eemshaven have potential to become bioenergy-hubs.

Swedish pellets production reaches 2,1 M tons in 2010

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35936&-find=>

According to Bioenergi, due to new & expanded production capacity, Sweden will see pellets production increasing by 500000 ton in 2010. The installed capacity will be 2,5 Mton. The production was 1.4 Mton (2008) 1.6 Mton (2009) and 2.1 Mton (estimate for 2010). Swedish Pellets Producers Association says that in 2009, the export of pellets from Sweden was 90000 tons and the import 430000 tons.

International Forest Products (IFP) markets Serbia-based wood pellet producer Forest Enterprises

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-trading-firm-international-forest-products-markets-serbian-forest-enterprises.html

The agreement establishes IFP as the exclusive marketer of Forest Enterprises' wood pellet products to Italy, Austria and Germany. The contract with IFP also provides for sufficient flexibility to allow Forest Enterprises to develop markets in Serbia so the local economy may begin to utilise locally produced biofuel.

Aker Solutions confirms biomass plant in Scotland

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35908&-find=>

Aker Solutions confirms a GBP 115 mn contract, awarded by RWE to provide design, supply, installation, construction and commissioning for a new 50MW Biomass RE plant at the Tullis Russell Papermakers plant near Fife in Scotland. The plant will reduce Tullis Russell's annual CO₂ emissions by 250,000 tonnes. The project is part of RWE's ongoing commitment to invest €1 bn annually in RE.

Helius Energy will build a 100MWe biopower station at Avonmouth Dock

<http://www.thebioenergysite.com/news/5862/consent-for-avonmouth-bio-mass-power-plant>

The plant will produce clean power for around 200,000 homes, and will save over 720,000 tonnes of CO₂. Yearly, the plant will require upto 850,000 tonnes of wood-based feedstock.

Enel SpA and Endesa SA to combine renewables activity in Spain, Portugal

www.sustainablebusiness.com/index.cfm/go/news.display/id/19998

Joint projects will be conducted under Enel's subsidiary EPG. The new entity would have, once fully integrated, 1.4 GW of operational attributable capacity and a diversified portfolio in technologies including biomass and CHP.

Biomass plant coming up on the Isle of Wight

<http://www.thebioenergysite.com/news/5985/goahead-for-biomass-plant>

Business & Markets - GLOBAL

GDF Suez plans a 190-MW 100% biomass-fueled power plant in Poland

http://www.biomagazine.com/article.jsp?article_id=3648

GDF Suez has signed a €240 mn contract with Foster Wheeler to design and construct a CFB boiler for the power station upcoming at GDF Suez's 1,800-MW cofired Polaniec Power Station. Foster Wheeler will design and supply the steam generator, auxiliary equipment & biomass yard. It will also construct and commission the boiler island. It will annually require 222,000 tons of agri-fuels and 890,000 tons of woody biomass. The plant will be up by end-December 2010.

Wärtsilä successful in liquid bio-fuelled power plants; a new order from Italy

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebuppdat.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Vlista2=PRO&-max=20&-recid=35740&-find=>

The Italian order is for supplying the engineering and equipment for a new bio-fuelled power plant coming up in Gorizia. The 34 MWe power plant will generate baseload electricity for the national grid, as well as heat to be supplied to a steam turbine for further electricity production. This order will bring the total output of electricity in Italy generated by Wärtsilä equipment to more than 1300 MW.

CCS must overcome challenges to hit CO2 targets: Experts

<http://www.newenergyworldnetwork.com/cleantech-features/carbon-capture-and-storage-must-overcome-challenges-to-hit-co2-targets-experts-warn.html>

According to Gardiner Hill - Special Advisor on CCS for BP & Vice Chairman of the EU's Zero Emissions Platform, "Europe has undergone a major transformation in the past 2 years to moving towards commercially deployable CCS. The goal is for CCS to be a key technology in combating climate change; all other technologies have been deployed at scale but this is not the case with CCS and, therefore, issues are becoming very urgent. We need to realize the difference between communicating on a very wide scale and the specific communication to enable a project to happen."

Confederation of European Waste-to-Energy Plants e.V. (CEWEP): Waste-to-Energy and RE targets

<http://www.recyclingportal.eu/artikel/23942.shtml>

"Biomass is one of the most important resources for reaching our RE targets. It already contributes more than half of RE consumption in the EU, providing a clean, secure and competitive energy resource" (Günther Oettinger, EU Commissioner responsible for Energy)

"Waste offers a significant source of renewable energy: Incineration and other thermal processes for Waste-to-Energy, landfill gas recovery and utilization, and use of anaerobic digester biogas can play important roles in reducing fossil fuel consumption and Greenhouse gas emissions" (By International Solid Waste Association in its white paper on "Waste and Climate Change")

Waste-to-Energy (incineration with energy recovery) provides by far the largest quantity of RE from waste. Waste-to-Energy plants in Europe supplied some 38 bn KWh in 2006, and by 2020 this amount will grow to at least 67 bn KWh. Further, this can potentially reach 98 bn KWh with the right policy drivers in place, which will be enough to supply 22.9 mn inhabitants with renewable power and 12.1 mn inhabitants with renewable heat.

During 2006, Waste-to-Energy's share of the total RE produced by countries was: the Netherlands (14.3%), Belgium (13.3%), Denmark (12.5%), Germany (7.5%). In Sweden and France also, Waste-to-Energy makes a considerable contribution, and has substantial potential.

Business & Markets - GLOBAL

Oil giant BP to spend US\$1bn in 2010 on RE including CCS and Bioenergy

<http://www.renewableenergyfocus.com/view/8767/bp-to-spend-us1bn-on-renewable-energy/>

PROJEN & Axion - partnering for biofuels & advanced thermal waste processing among other businesses

<http://www.thebioenergysite.com/news/5956/projen-and-axion-form-strategic-alliance>

BP will sell minimum of 60,000 MTon biodiesel per annum produced from Four River's UK facility for an initial term of 5 years

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebuppdat.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35973&-find=>

Latin America

Brazil's ethanol exports weakens as US output hits record levels: Czarnikow

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/brazil%e2%80%99s-grip-on-ethanol-exports-weakens-as-us-output-hits-record-levels-says-uk-sugar-trader-czarnikow.html

Peru has signed 26 green energy contracts; expects to bring in \$1 bn

<http://www.reuters.com/article/idUSTRE6344HJ20100406>

The deals, signed with foreign and domestic companies, include a total of 412 potential MW of "clean" energy which also include biomass as a source of energy generation. The contracts last for 20 years and will generate about 9% of current power demand in the country. All of the contracts come with pacts enabling the generators to sell power to Peru's main distribution companies.

Africa

Clenergen - Energy Technologies: Strategic Alliance

<http://www.bfnnews.com/display/?id=3817731§ionId=standardNews>

New company - Clenergen Southern Africa (Pty) which will develop distributed environmental power systems and the cultivation of energy crops in southern Africa with specific focus on supplying wood chips for various regional gasification biopower plants, turnkey solution for major mining companies, pellets for co-fired coal power plants as well as exporting wood chips and pellets for distribution within southern Africa and export to the Middle East and India.

Africa key to Southeast Asia success

http://ae-africa.com/read_article.php?NID=1938

Key excerpts from "The Africa and Southeast Asia Business Forum" held in Singapore in April,

- Africa presents a lucrative opportunity with investment returns between 20-30%. (Singapore's High Commissioner to Nigeria Shabbir Hassanbhai)
- African business opportunities are ripe for Southeast Asian firms.
- The Africa and Southeast Asia Chamber of Commerce is likely to be set up to connect businesses from both the regions operating in RE, management of seaports and airports and water treatment. The Singapore Government, African Development Bank, World Bank and the International Finance Corp. have set up a \$1 bn fund to help firms out of the Asian region venture into RE.

Business & Markets - GLOBAL

Green Energy suggestions for Mozambique

http://ae-africa.com/read_article.php?NID=1923

A report published by Mark Hankins - Nairobi-based RE expert - showcases the opportunities that Mozambique has for green energy provided that it stops fueling neighboring South Africa.

Other Countries

Hongkong-based Everbright group invests in Chinese straw power

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35924&-find=>

The company has announced a 54-MW straw to energy project in Suzhou city and in Xinyi City. Another Straw Project has been agreed with the Xinyi Municipal Govt in Jiangsu Province for two 15-MW electricity straw project together with a waste water treatment plant.

Marubeni gets contract from TP Utilities

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35920&-find=>

TP Utilities Pte. Ltd. has awarded a US\$250 mn EPC contract to Marubeni Corporation to construct its Biomass and Clean Coal Co-gen Plant, the first and largest of its kind in Singapore to employ a fuel mix of coal and tropical biomass (palm kernel shell).

Solutions Using Renewable Energy, Inc. to build 1.2MW, \$2.7-mn, rice husk- & wood chip-fired co-gen plant at Pepsi Philippines's complex

<http://www.thebioenergysite.com/news/5905/biomass-plant-for-soft-drinks-giant>

China National Petroleum to increase clean energy production

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/china-national-petroleum-to-increase-clean-energy-production.html

Japan's Chubu Electric Power in biomass sewage sludge project

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35917&-find=>

Chubu Electric Power Co. Inc. and METAWATER Co. Ltd. will work to produce fuel from sewage sludge at the Kinuura East Purification Center, which then will be co-fired with coal at Chubu's Hekin Thermal Power Station. The project will reduce CO₂ emissions by approx 8,000 Mtons/year.

AE&E to build 40 MW, €60 mn bagasse plant in Australia

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebbuppdatt.fp5&-format=detail.htm&-sortfield=Publiceradatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Vlista2=PRO&-max=20&-recid=35905&-find=>

The AE&E Group receives an order from Australia's Mackay Sugar Limited to build a 40 MWe co-gen plant at the Racecourse Sugar Mill in Mackay, north-east Queensland, Australia. The plant will be fired with biomass derived from sugar production, replacing an outdated bagasse and coal fired boiler.

In 2009, China invested about US\$ 35 bn in clean energy, the US invested about 19 bn: Pew Charitable Trusts

<http://english.cctv.com/program/bizchina/20100325/103102.shtml>

Abu Dhabi build first full Eco-City

<http://www.alternative-energy-news.info/abu-dhabi-eco-city/>

Finance & Investments - INDIA

PTC Fin steps into carbon financing

<http://in.biz.yahoo.com/100406/50/bavctg.html>

PTC India Financial Services (PFS) has entered the carbon financing business. PFS has also signed an MoU with London-based Macquarie Bank for cooperation in the carbon finance business. Targeted RE projects for carbon financing include biomass, wind, solar, small hydro energy and energy efficiency. PFS also has a pipeline of renewable sector projects with cumulative capacities of more than 100 MW. The cumulative equity and debt sanction of PFS in renewable and non-renewable space is in the range of Rs 2,100 crore. In the next 3 years, PFS proposes to build a portfolio of more than 3 mn carbon credits.

5 different sectors to attract over \$8 bn investments'

<http://smetimes.tradeindia.com/smetimes/news/industry/2010/Apr/03/5-different-sectors-to-attract-over-8-bn-investments61094.html>

According to a joint report by Deloitte and ASSOCHAM - "Indian Venture Capital – A Future Scenario",

- *A whopping investment of over US\$ 8.5 bn is expected in Indian Venture Capitalists and Private Equities by 2012 in 5 identified areas including cleantech.*
- *Investors until recently committed US\$ 300 mn in a number of cleantech investment deals. The momentum is expected to continue over the coming years given government initiatives and policy focus.*
- *It is expected that PEs and VCs would be able to jointly garner an investment of US\$ 4 bn in cleantech in next few years.*

India emerges as key investment area for clean energy funds

<http://www.livemint.com/2010/04/27000126/India-emerges-as-key-investmen.html>

PE firm Olympus Capital Holdings Asia is betting big on the Indian cleantech market. Olympus has a \$250 mn regional environment fund, about 40-50% of which would be invested in India. That would mean 4-5 investments in India over the life of the fund. Olympus believes that India faces greater environmental challenge that offers attractive investment opportunities in the clean-tech space, including waste management, water treatment, energy efficiency and RE like wind, solar, biomass and hydel power. Clean-tech firms also derive benefits from government incentives. Climate Change Capital Ltd also wants to put money in carbon-embedded assets and buy carbon credits in projects. The range of investments will vary depending upon the value of "embedded carbon" in the projects.

Fast Facts

Fact

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According to a report by the Economic Commission for Latin America and the Caribbean, some Latin American nations could witness upto 40% of its biodiversity getting wiped out by 2100 with a global temperature rise over 3°C due to decreasing rainfalls, eventually causing loss of forests in the Amazon which is home to one of the world's largest concentrations of biodiversity. By 2100, the cost of climate disasters could reach an estimated 250 bn dollars/year compared to the current annual average of 8.6 bn dollars. Bolivia, Chile, Ecuador, Paraguay and Peru could be among the countries worst hit, losing upto 60% of their arable lands.

(<http://www.google.com/hostednews/afp/article/ALeqM5glnBbsYW0kEYtF7xunrSRsxtocwA>)

North America

Cleantech venture investments soar to \$1.9 bn in Q1 2010

<http://www.business-standard.com/india/news/cleantech-venture-investments-soar-to-19-bn-in-q1-2010/90151/on>

According to a report by Cleantech Group and Deloitte, global venture investments in cleantech companies rose 83% to \$1.9 bn during Q12010 as compared to Q12009, setting a record of 180 deals in the period compared to its previous high of 165 deals in the Q42009. Preliminary Q12010 results for cleantech venture investments in North America, Europe, China & India, totalled \$1.9 bn across 180 companies.

Intrinergy raises undisclosed funding from Riverstone Holdings

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/global-biomass-company-intrinergy-y-raises-undisclosed-funding-from-riverstone-holdings.html

Riverstone Holdings' most recent renewable and alternative energy fund has made an undisclosed strategic investment in biomass RE company Intrinergy to help it acquire and develop low-cost wood pellet operations and other fibre processing assets, principally in the southeastern US and other selected regions.

Aurora Biofuels secures \$15 mn to commercialize its advanced algae-biofuel technology

<http://www.thebioenergysite.com/news/5800/aurora-biofuels-secure-s-15-mn-funding>

Piper Jaffray Cos. to raise \$300 mn CleanTech Alliance Fund

<http://www.bizjournals.com/twincities/stories/2010/04/19/daily40.html>

US sustainable-focused Green Bank raises \$115m

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/us-sustainable-focused-green-bank-raises-115m.html

Green Bank, a Houston-based bank focused on middle-market environmental investing, has raised \$115m in PE funding with several other investors including Friedman Fleischer & Lowe, Harvest Partners and Pine Brook Road Partners. Green Bank focuses on sustainable practices and supports environmentally-based NPOs and rewards clients for conserving resources.

Europe

Platina closes €209m RE fund to invest in European RE projects

<http://www.altassets.com/component/kb/article/nz18240.html>

Poland: European Investment Bank provides €20.8 mn to construct biofuel plant

<http://195.149.138.20/nirak-konsult/nyhet/bioint/FMPPro?-db=demowebb-uppdatt.fp5&-format=detail.htm&-sortfield=Publiceratdatum&-sortorder=descend&-sortfield=Forfattare&-sortorder=descend&Bil=BEI&Klarpub=Ja&Alternativ=Ja&-max=20&-recid=35925&-find=>

Investing non-directly proves popular in PE: Experts

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/investing-non-directly-proves-popular-in-private-equity-experts-say.html

SSE Renewables secures £400m loan from European Investment Bank for UK clean energy projects

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/wind/sse-renewables-secures-400m-loan-from-european-investment-bank-for-uk-clean-energy-projects.html

UK's CRC scheme creates 'value trap' for investors: PwC

<http://www.newenergyworldnetwork.com/alternative-energy-knowledge-bank/uk%e2%80%99s-crc-scheme-creates-%e2%80%98value-trap%e2%80%99-for-investors-says-pwc.html>

According to PricewaterhouseCoopers (PwC), the UK's new Carbon Reduction Commitment (CRC) Energy Efficiency Scheme will see businesses purchase allowances to cover their CO2 emissions. The CRC may eat into investors' profits when they seek to exit a business. Operational costs related to energy may increase by up to 20% by 2015, representing as much as 1-2% of the costs of a typical company in the scheme. In the 1st year alone, additional energy costs may rise by up to 6%.

EU Emissions Trading Scheme is underperforming: EIC

Environmental Investment Network

<http://www.newenergyworldnetwork.com/renewable-energy-news/eu-emissions-trading-scheme-is-underperforming-industry-says.html>

Carbon Trust invests £1m in UK's Helveta to tackle deforestation

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/carbon-trust-invests-1m-in-helveta-to-tackle-deforestation.html

European investment firm WHEB Ventures raises £100m for 2nd cleantech fund; anticipates fund's final close before May-end

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/european-investment-firm-wheb-ventures-raises-100m-for-second-clean-technology-fund.html

I2BF launches 2nd cleantech fund

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/solar-by_technology-new-news/asset-manager-i2bf-launches-second-clean-technology-venture-fund.html

Asset management group I2BF has launched its 2nd cleantech-focused VC fund and will look to raise \$100m to invest in the sector.

Other Countries

Pacific Road acquires 10% stake in coal gasification company Carbon Energy

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/australian-fund-manager-pacific-road-acquires-stake-in-carbon-capture-company-carbon-energy.html

Origo Partners to launch US\$150-mn cleantech fund in China

http://www.chinaknowledge.com/Newsires/News_Detail.aspx?type=1&cat=CMP&NewsID=%2033231
<http://www.altassets.com/private-equity-news/article/nz18421.html>

As per the agreements between the government of Xinxiang, Henan Province and Origo Partners Plc., the Origo China Sustainable Development Fund will raise \$75m and will anchor investment of \$18m in Xinxiang municipal govt for RE, electric vehicles, waste recycling, energy storage and distribution, sustainable agriculture & water technologies.

CLSA targets US\$200M in cleantech

<http://www.zero2ipo.com.cn/en/n/2010-4-23/2010423105353.shtml>

CLSA Capital Partners will hold a final close of its Clean Resources Asia Growth Fund by Q42010.

ADB approves \$2m for clean energy

<http://tribune.com.pk/story/7336/adb-approves-2m-for-clean-energy/>

The Asian Development Bank has approved \$2 mn technical help to Bangladesh, Bhutan, Cambodia, Indonesia, Laos, Nepal, Pakistan and the Philippines to modern means to access clean energy. Japan's Asian Clean Energy Fund under the Clean Energy Financing Partnership Facility will fund the assistance. Around 800 mn people in developing Asia currently have no access to electricity. Around 1.8 bn people must rely on traditional biomass fuels to meet their cooking and heating needs.

R & D / Technology - INDIA

RIL considering feasibility study on algae-derived biofuel

<http://beta.thehindu.com/sci-tech/science/article390600.ece>

Kingfisher ties up with Anna University to cut down emission

<http://timesofindia.indiatimes.com/city/chennai/Kingfisher-ties-up-with-Anna-Univ-to-cut-down-emission/articleshow/5772063.cms>

Kingfisher Airlines has tied-up with Anna University to carry out joint research to cut down carbon emissions and introduce bio-fuels. This is the first time, an airline has signed an MoU with a university for research. Under the 4-year agreement, joint research will be conducted for 'aircraft emission optimisation and forecasting module'. The airline has a II-phase green programme aimed at cutting down carbon emissions. The duo will use bio-fuel to power ground-handling vehicles in 6 months during the 1st phase. In the 2nd phase, they will fly aircraft using bio-fuels. KLM Royal Dutch Airlines, Continental Airlines, Virgin Atlantic, Qatar Airways and Emirates are among some of the airlines that have experimented with bio-fuels.

Fast Facts

Fact

3 Climate scientists have reached a consensus that extreme weather, such as devastating typhoons and floods, severe and persistent droughts, snowstorms and heat waves, has increased over the past 50 years, and is likely to continue rising in the coming years. Some findings of a recent research by World Meteorological Organization (WMO) -

1

In 2009, the average land and sea temperature on Earth (combined air surface and sea surface temperatures) have so far hit 14.44°C (57.99°F) or 0.44°C (0.79°F) above the average annual temperature of 14.00°C (57.20°F) between 1961 and 1990 - a reference period.

2

Most of the world's continents experienced above-average temperatures in 2009, with the exception of North America, which cooled down. Many other regions, including parts of Asia, China and Africa, experienced their highest temperatures on record resulting from the El Niño - the weather phenomenon that warms the Pacific Ocean - which is likely to continue until the middle of 2010. The El Niño could also bring extreme rainfall to parts of Asia and east Africa, which were hit by a cycle of drought and floods in 2008.

3

Weather patterns are already having "early and intense" effects like drought in Australia and dramatically warm seas in the Indian Ocean affecting the monsoons.

4

Australia experienced its 3rd-hottest year on record, and faced three heat waves of remarkable intensity.

5

The Philippines had experienced more heavy rainfall and cyclones and they are expected to continue coming.

R & D / Technology - GLOBAL

North America

Ethanol yields from CRP croplands

<http://www.thebioenergysite.com/news/5823/estimating-ethanol-yields-from-crp-croplands>

A study by Agricultural Research Service (ARS) scientists says that plant species diversity and composition are key factors in potential energy yield per acre from biomass harvested from CRP (Conservation Reserve Programme) land.

SDSU studies corn stover pretreatment

http://www.biomagazine.com/article.jsp?article_id=3651

South Dakota State University Study says that a high shear bioreactor (extrusion) pretreatment process can help prepare corn stover as a feedstock for making cellulosic ethanol.

Airport plants willow and trials biomethane

<http://www.thebioenergysite.com/news/5880/airport-plants-willow-and-trials-biomethane>

East Midlands Airport and UK-based Gasrec are trialling an airport passenger transfer bus powered by Liquid Biomethane fuel, which is created by extracting natural gas produced by biomass in landfills or by digestion of biomass byproducts of industries like food manufacture and retail. The willow farm is expected to produce around 280 tonnes of wood fuel annually, which in turn will save 350 tonnes of CO₂ emissions.

Zeachem's technology platform validated to convert biomass into ethanol intermediate

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/biofuel_biomass/zeachem%e2%80%99s-technology-platform-validated-to-convert-biomass-into-ethanol-intermediate.html

Woodland develops demo cellulosic ethanol plant at Bioindustrial Innovation Centre on University of Western Ontario campus

http://www.biomagazine.com/article.jsp?article_id=3663

Heartland Biodiesel develops new purification column design

http://www.biodieselmagazine.com/article.jsp?article_id=4122

Biofuel-secreting microbes developed by researchers at Arizona State University's Bidesign Institute

http://www.biomagazine.com/article.jsp?article_id=3634

University of Connecticut's Center for Environmental Science & Engineering opening Biofuels Testing Laboratory

http://www.biodieselmagazine.com/article.jsp?article_id=4124

Algae research facility coming up

<http://www.thebioenergysite.com/news/5836/algae-research-facility-for-wageningen-ur>

Wageningen UR (University & Research centre) will start construction on the AlgaePARC (Algae Production And Research Centre) at the Wageningen Campus. AlgaePARC will research on sustainable and economically viable micro-algae cultivation systems.

Southern Research Institute agrees with HCL CleanTech to help develop low cost fermentable sugars, high-quality lignin and tall oils from pine trees

http://pr-usa.net/index.php?option=com_content&task=view&id=366739&Itemid=32

R & D / Technology - GLOBAL

Grant for algae oil research

<http://www.thebioenergysite.com/news/5659/grant-for-algae-oil-research>

National Science Foundation's Faculty Early Career Development programme recognizes Kansas State University research to make algae oil production more economical. K-State's Weinqiao "Wayne" Yuan, Assistant Professor of Biological and Agricultural Engineering, has received a 5-year, \$400,000 grant through the foundation's CAREER programme for his project, Multi-scale Structured Solid Careers Enabling Algae Biofuels Manufacturing in the Ocean.

Cobalt turns beetle-killed pine into biobutanol

http://www.biomassmagazine.com/article.jsp?article_id=3645

Cobalt Technologies has achieved a breakthrough in producing biobutanol from beetle-killed lodgepole pine feedstock. Cobalt is the first company to produce a drop-in replacement for petroleum and petrochemicals from beetle-affected lodgepole pine. To evaluate the fuel's viability for commercial vehicles, the company has signed a fuel testing partnership with Colorado State University.

University of Minnesota Study assesses landscape effects on biomass crop yields

http://www.biomassmagazine.com/article.jsp?article_id=3634

Algae to capture gases from cement plant

<http://www.thebioenergysite.com/news/5979/algae-to-capture-gases-from-cement-plant>

Pond Biofuels is using the gases from a cement plant of St. Marys Cement Group in southern Ontario to cultivate algae and capture CO₂. The project has been running for 3 years.

NREL & 3M agree for RE Research

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/solar-by_technology-new-news/nrel-and-technology-company-3m-sign-agreement-for-renewable-energy-research.html

The US DoE's NREL has announced a series of cooperative biofuel R&D agreements with 3M. The agreements will establish innovation in biofuels along with other clean technologies. The cooperative research and development agreements, which last for one year, range from jointly identifying and developing critical aspects of RE technology to accelerated testing of 3M designs and scaling-up successful prototype technologies for commercial production.

Siemens Energy to conduct carbon capture at Longview Power plant

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_efficiency/siemens-energy-to-conduct-carbon-capture-study-at-longview-power-plant.html

Clemson to be leader in clean energy

<http://www.greenvilleonline.com/article/20100417/NEWS/304170012/1004/NEWS01/Clemson-aims-to-be-leader-in-clean-energy>

The Clemson University will become a net-zero carbon emissions university and a model for sustainability. The campus initiative will include a comprehensive system of RE production, efficient distribution and conservation that will eliminate the use of coal; offer research and educational opportunities and provide partners with innovative solutions, technology testing and demo sites for pilot programs.

Lafarge cement plant, Ontario plants energy crops; will replace a portion of the 110,000 metric tons of fossil fuel consumed annually

http://www.biomassmagazine.com/article.jsp?article_id=3657

R & D / Technology - GLOBAL

Europe

French torrefaction firm Thermya targets North America for TORSPYD

http://www.biomassmagazine.com/article.jsp?article_id=3665

TORSPYD - a fast continuous torrefaction technology uses a soft thermal treatment of biomass (240° C or 464° F) based on the continuous circulation of two air flows moving in opposite directions. As a result of the hot neutral gases, the biomass is dehydrated and then depolymerized in the reactor to eventually produce biocoal. The resulting biocoal product retains 90% of its initial biomass and contains a moisture level of 1%. The first commercial TORSPYD torrefaction plant is currently under construction in Northwest Spain and should be operating at the end of 2010.

Trio - Econcern, The Energy Research Centre of the Netherlands and Chemfo working on 1st commercial torrefaction plant creation - BO2-pellets

<http://pellets-wood.com/pellets-torrefaction-in-the-netherlands-o4145.html>

University of Southampton selected by Carbon Trust to find world-beating algae biofuel formula

<http://www.thebioenergysite.com/news/5857/southampton-joins-global-algae-biofuels-race>

£25m investment in carbon storage demo project

http://www.newenergyworldnetwork.com/renewable-energy-news/by_technology/energy_storage/uk-energy-technologies-institute-to-invest-25m-in-carbon-storage-demo-project.html

The UK Energy Technologies Institute (ETI) will develop CCS next-gen technology demonstrator. ETI is searching partners for the project. The project will develop full scale demo by 2015 and will be ready for adoption into full scale commercial power applications by 2020.

Africa

Ugandan scientists incorporate ethanol retrieval from cassava stems and leaves, pineapple leaves, elephant grass stems and wood

http://ae-africa.com/read_article.php?NID=1908

Ethanol from orange peels & papers: University of Central Florida

http://bioenergy.checkbiotech.org/news/orange_peel_breakthrough_biofuels

FT-IR for algae characterization

http://www.biodieselmagazine.com/article.jsp?article_id=4133

Thermo Fisher Scientific Inc.'s FT-IR sampling solutions are designed to provide a cost-effective approach to characterizing the chemical composition of lipids in algae. Thermo Scientific FT-IR-based automated sampling techniques can be used to analyse algae.

Palm Oil is the Most Sustainable Crop: Wageningen University Report

<http://www.solomonstarnews.com/news/business/4324-palm-oil-is-the-most-sustainable-crop-wageningen-university-report>

Other Countries

Hitachi Plant Technologies & Nippon Oil will develop jet fuel from a single-celled organism, Euglena

<http://www.thebioenergysite.com/news/5710/biofuel-from-euglena>