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BIO ENERGY COUNCIL OF INDIA

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

W: www.bioenergyindia.org

E: info@bioenergyindia.org

Supported By

Abellon CleanEnergy

W: www.abelloncleanenergy.com

E: abellon@abelloncleanenergy.com



Policy Initiatives

India

Karnataka framing policy on sustainable development

Karnataka is formulating a new policy to address sustainability issues and challenges in consultation with industry. State Industries Secretary M.N.Vidyashankar said the policy would be ready by December 2014 to address sustainability issues and challenges.

<http://india.nydailynews.com/business/97472aa81955d2dc824783fad143578e/karnat-aka-framing-policy-on-sustainable-development>

MoEF frames rules to check urban solid waste menace in Jaipur

The ministry put forth the draft of municipal solid waste (management and handling) rules 2013 in public domain for suggestions and comments. The new rules also make it mandatory for the municipal authority to prepare solid waste management plan as per the policy of the state government

http://articles.timesofindia.indiatimes.com/2013-08-31/jaipur/41641838_1_pollution-control-board-disposal-facility-moef

Europe

UK government announces biomass sustainability criteria

According to DECC , the UK's biomass sector – which it estimates is worth over €1.17 billion in new investment and currently accounts for 38 % of the nation's renewable energy supply. The energy department says these new changes will slash GreenHouse Gas Emissions by 70% compared to fossil fuel alternatives.

The new criteria for sustainable forest management are based on a range of issues such as:

- Sustainable harvesting rates
- Biodiversity protection
- Land use rights and indigenous populations.

http://www.bioenergy-news.com/index.php?/Industry-News?item_id=6722

EU set for landmark vote on future of biofuels

The European Parliament's Environment Committee set a standard for biofuels made from food crops to 5.5 %. The committee also focuses on carbon emission from other pollution sources and consider advanced biofuels as the next emerging option.

<http://www.rtcc.org/2013/09/10/eu-set-for-landmark-vote-on-future-of-biofuels/>

UK sustainability criteria provide policy certainty

The recently released U.K. Department of Energy & Climate Change criteria for the sourcing of

sustainable biomass recognize the robust sustainability practices of U.S. industrial wood pellet manufacturers and provide much needed policy certainty that will help grow U.S. manufacturing. New DECC criteria begins with reporting in April 2014, becoming mandatory a year later for electrical generators with capacities of 1 MW and above.

<http://biomassmagazine.com/articles/9454/uk-sustainability-criteria-provide-policy-certainty/>

Business & Market

India

Biogas plant in Kerala working in full flow

The biogas plant at Connemara market in Palayam, Kerala started full-fledged operations in September. Energy generation capacity of the plant is 30 kilowatts that can light 15 energy-efficient lamps to be set up in a few days' time in the fish market and open areas of the market.

<http://newindianexpress.com/cities/thiruvananthapuram/Biogas-plant-starts-working-in-full-flow/2013/09/02/article1763946.ece>

Waste to power by gasification: Bangalore can emulate Pune model

The process of gasification technology, which is simulated using advanced computational tools at Center for Study of Science, Technology and Policy (CSTEP), could prove to be a sustainable solution for Bangalore.

<http://bangalore.citizenmatters.in/articles/gasification-technology-power-from-municipal-solid-waste-pune-bangalore>

TERI in association with NEDO organizes the fifth edition of India-Japan Energy Forum

The Energy and Resource Institute (TERI) in association with NEDO (New Energy and Technology Development Organization) kick started the fifth edition of India Japan Energy Forum today. The Indian and Japanese experts have been exchanging their ideas towards an energy secure sustainable model of growth through various platforms at an international level.

<http://indiaeducationdiary.in/Shownews.asp?newsid=25399>

India to miss green power target due to slowdown

Renewable energy sector in the country appears to be facing the brunt of a weak economy, as there has been tardy progress in new capacity addition during the current financial year.

<http://www.mydigitalfc.com/news/india-miss-green-power-target-due-slowdown-432>

Guwahati CM for harnessing renewable energy

Assam CM Tarun Gogoi told Investors and experts say that energy security is the key to the state's development. He emphasized that the renewable energy sector can significantly contribute to the state's energy security.

http://articles.timesofindia.indiatimes.com/2013-09-13/guwahati/42040026_1_renewable-energy-energy-security-energy-potential

India: turning waste into sustainable employment opportunities

Social entrepreneur and Ashoka fellow Ravi Agarwal has been working to change a system which has the potential of improving health and environment in the country where one sixth of the world's population lives. Acutely aware of the danger of disappearing income opportunities for the waste pickers, Agarwal turned the changing substance of waste into sustainable employment for those at the bottom of the economic ladder.

<http://www.theguardian.com/sustainable-business/india-waste-sustainable-employment-opportunities>

Garbage collection project gets green signal in Bihar

http://articles.timesofindia.indiatimes.com/2013-09-11/patna/41969343_1_pmc-garbage-collection-shashank-shekharsinha

Coimbatore Corporation to adopt Warangal model of waste collection

The move is one of the several measures the civic body has been implementing over the years to improve solid waste management in the city – from door-to-door collection to segregation of waste and processing the degradable waste into manure.

<http://www.thehindu.com/news/cities/Coimbatore/coimbatore-corporation-to-adopt-warangal-model-of-waste-collection/article5111452.ece>

North America

Nippon biomass almost operational

Nippon Paper Industries USA's expanded biomass cogeneration plant is finally set to go online in October in Washington State . The plant will create steam to make paper and generate 20 MW of electricity for the mill and for sale.

<http://www.cospp.com/articles/2013/09/nippon-biomass-facility-goes-online-next-month.html>

EDF Renewable Energy Acquires Heartland Biogas Project

The 20MW-equivalent anaerobic digester and Renewable Natural Gas (RNG) facility has commenced construction activities with biogas deliveries to begin by the end of first quarter 2014 producing up to 4,700 MMBtu of biogas daily making it one of the largest anaerobic digester facilities in the United States.

<http://www.onlinetes.com/edf-renewable-energy-heartland-biogas-project-9913.aspx>

Conifex restarts Mackenzie bioenergy project

Conifex Power Ltd. partnership has confirmation that it will receive a commitment for \$100 million in project financing for its planned 36 megawatt bioenergy power project in Mackenzie, BC

<http://www.canadianmanufacturing.com/fabrication/news/conifex-restarts-mackenzie-bioenergy-project-116882>

BioNitrogen granted U.S. patent for biomass-to-urea technology

BioNitrogen Corporation announced that the patent for its biomass-to-urea technology has been approved by the U.S. Patent and Trademark Office. The patented technology will be used in BioNitrogen's plants.

<http://www.agprofessional.com/news/BioNitrogen-granted-US-patent-for-biomass-to-urea-technology-224455241.html>

Europe

Biogas AD Plant to Co-Digest Farm Waste & Energy Crops in Lancashire, UK

According to the company the project is set to commence in September 2013 and will take around six months to complete. Overall the plant is expected to process some 10,000 tonnes of feedstock per year and generate 500 kW of electricity which will be exported to the National Grid.

<http://www.waste-management-world.com/articles/2013/09/biogas-ad-plant-to-co-digest-farm-waste-energy-crops-in-lancashire-uk.html>

Aemetis announces EPA approval to produce D5 Advanced Biofuels

Aemetis, an advanced fuels and renewable chemicals company, announced today that the US Environmental Protection Agency (EPA) has granted it approval to produce ethanol using grain sorghum and biogas with the plant's existing Combined Heat & Power (CHP) system to generate higher-value D5 Advanced Biofuels Renewable Identification Numbers (RINs).

<http://online.wsj.com/article/PR-CO-20130903-905363.html>

UAC forms biogas joint venture with Italian firm

Universal Adsorbents & Chemicals has established UAC Energy, a subsidiary for design and construction of biogas plants, in a joint venture with Sebigas, a leading Italian biogas firm, to seize business opportunities in Thailand and elsewhere in Asean

<http://www.nationmultimedia.com/business/UAC-forms-biogas-JV-with-Italian-firm-30214065.html>

AREVA wins contract for cogeneration power plant in France

AREVA in consortium with French Leroux & Lotz Technologies, has been selected by Neoen, an electricity producer from renewable energies, for the construction of a biomass cogeneration power plant in Commentry, France (Allier department), for an amount worth 55 million euros. This power plant will enable the reduction of 40,000 tons of CO2 emissions per year. It will be able to generate around 15 MW of electrical power and 50 MW of thermal power.

<http://www.pennenergy.com/articles/pennenergy/2013/09/bioenergy-areva-wins-contract-for-cogeneration-power-plant-in-france.html>

Stobart signs biomass framework agreement with Greensphere Capital

The framework agreement includes supply of up to 1,000,000 tonnes of biomass fuel annually for existing and potential biomass power plants. Stobart CEO Andrew Tinkler said that Greensphere is its suitable partner in the expanding biomass market and it will continue to work with other plant developers

<http://biofuelsandbiomass.energy-business-review.com/news/stobart-signs-biomass->

[framework-agreement-with-greensphere-capital-110913](#)

[Marine biofuel plant planned for development in Denmark](#)

Canadian biofuel company Steeper Energy, and Denmark-based Aalborg University have announced a partnership to develop a sulphur-free marine biofuel plant in Denmark. The proposed project is currently expected to produce between 50,000 and 100,000 tons of fuel per year.

<http://biomassmagazine.com/articles/9412/marine-biofuel-plant-planned-for-development-in-denmark>

[Fortum inaugurates CHP plant in Latvia](#)

The plant uses woodchips to generate 45MW of power and 23MW of electricity – enough to benefit 85% of the city's heating capacity reducing CO2 emissions by 44,000 tonnes compared to 2010.

http://www.bioenergy-news.com/index.php?/Industry-News?item_id=6770

[Enova Energy to purchase Georgia pellet plant](#)

Enova is designating purchase of the SEGA plant as its first step into the wood pellet export industry. Enova plans to install extra equipment to bring the plant closer to hitting its 150,000 ton-per-year capacity, up from its current run rate of about 75,000 to 100,000 tons per year.

<http://biomassmagazine.com/articles/9434/enova-energy-to-purchase-georgia-pellet-plant>

[Sita UK and Tradebe form clinical waste management company](#)

Industrial waste management company Tradebe has signed a contract with resource management firm Sita UK to form a joint venture clinical waste management business

<http://www.mrw.co.uk/news/sita-uk-and-tradebe-form-clinical-waste-management-company/8653333.article?blocktitle=Latest-news---recycling-and-waste-management&contentID=2182>

[Biodiesel-based military cooking fuel introduced at DSEI](#)

British fire-lighters manufacturer has developed a military cooking fuel formula based on biodiesel, believed to offer a healthier and more environmentally friendly alternative to toxic hexamine. Zip, the Surrey-based fire-lighters and barbecue-fuels manufacturer has identified a gap in the market after a former soldier joined the company's staff. The fuel has been introduced in the UK for the first time at the Defence and Security Event in London this week.

<http://eandt.theiet.org/news/2013/sep/biodiesel-military-cooking-fuel.cfm>

Asia

[Seguntor biomass power plant converts waste to wealth](#)

The power plant uses combustion of biomass to produce steam that drives turbines to generate 11.5 MW of electricity. The plant adopts an innovative process to generate electricity from biomass with the effective use of empty fruit bunches as a classic case of successful conversion of waste to

wealth.

Furthermore, for the first time in Malaysia biogas power generation is incorporated into a biomass power plant. Here, 2 MW of electricity is generated from biogas extracted from biomass affluent that drives the gas engine. Power generated is sold to Sabah Electricity Sbn Bhd under the feed-in-Tariff renewable energy power purchase agreement.

<http://www.theborneopost.com/2013/09/13/seguntor-biomass-power-plant-converts-waste-to-wealth/>

Africa

Incbio to Equip North African Biodiesel Plant

Portugal's biggest supplier of biodiesel equipment will soon be outfitting a new biodiesel refinery in North Africa. Incbio signed a deal with Biokast Energy S.A. to supply a soon-to-be-built 8,000MT per year biodiesel plant in Tunis, Tunisia

<http://domesticfuel.com/2013/09/13/incbio-to-equip-north-african-biodiesel-plant/>

Blue Sphere signs MOU for landfill gas project in Africa

Blue Sphere Corp., a cleantech sector company has inked a Memorandum of Understanding in respect of a 3-6 MW landfill gas to energy project at Ivory Coast. The MoU gives Blue Sphere the ownership of the gas and energy to be produced therefrom in exchange for financing the cost of the project and sharing a portion of the profits with its partner in Ivory Coast. An initial site visit was recently completed and the initial projection for the site's energy potential is 3 MW gradually rising over time to 6 MW, as the site receives more waste

<http://biomassmagazine.com/articles/9446/blue-sphere-signs-mou-for-landfill-gas-project-in-africa/>

Finance & Market

North America

US Navy triples Clean Energy Startup Funding in Hawaii

The program's 8 million dollar seed funding came from the U.S. Department of Energy and continued with one percent in equity from early-stage companies. The Navy's 30 million dollar investment triples the resources it had over the last three years.

<http://thinkprogress.org/climate/2013/09/09/2587921/hawaii-navy-clean-energy/>

US DOE audit report recommends improvements to bioenergy funding

The U.S. DOE's Office of the Inspector General published an audit report analyzing the approximately 603 million dollar in financial assistance DOE has provided biorefinery projects. The DOE supports the development of biofuel, bioproducts and biopower projects via financial assistance for the development of pilot, demonstration and commercial-scale projects.

<http://www.biomassmagazine.com/articles/9448/doe-audit-report-recommends-improvements-to-bioenergy-funding>

Cool Planet raises additional 19.4 million dollar in funding

Cool Planet Energy Systems has announced the second close of a "D round" equity raise. Cool Planet added another \$19.4 million bringing the total amount raised and committed to over \$60 million, including the remaining commitments from existing investors.

<http://biomassmagazine.com/articles/9438/cool-planet-raises-additional-19-4-million-in-funding>

LanzaTech Awarded \$ 4 Million Grant to transform waste Methane into Low Carbon Fuels & Chemicals

LanzaTech, a producer of low-carbon fuels and chemicals from waste gases, today announced that it has been awarded a \$4 million grant by the Advanced Research Projects Agency-Energy (ARPA-E) of the U.S. Department of Energy (DOE). The focus for the grant is on reducing waste methane emissions from remote oil wells, coal seam and coalmine gases as well as landfill biogas often located in remote areas or released in relatively low volumes making them uneconomical to convert into other products.

LanzaTech is the first company ever to scale gas fermentation technology to a pre-commercial level, developing and successfully operating two facilities that convert waste flue gas from Baosteel and Shougang steel plants into ethanol. Both facilities in China operated at annualized production capacity of 100,000 gallons. Site location and engineering plans for two full commercial

facilities are under way and commercial production is expected to begin in 2014

<http://www.pollutiononline.com/doc/lanzatech-arpa-transform-waste-methane-carbon-chemicals-0001>

Asia

Filipino firm plans \$185m biomass investment

Asea One Power is to invest around \$185m over a five year period to build 60MW of biomass power plant capacity across the Philippines. It has been reported that the company would start with a \$37m, 12MW biomass-fired project in Banga, Aklan and hired an EPC contractor in June. The plant will use rice husks and straws as feedstock, in addition to woody biomass.

In addition to this site, Asea is also said to be eyeing locations in Iloilo, Luzon or Mindanao for the development of a \$90m 30MW biomass-fired power plant. The company said it may consider solar projects in the future.

http://www.bioenergy-news.com/index.php?/Industry-News?item_id=6809

RusForest secures financing for pellet plant in Russia

RusForest has secured bank financing for its wood pellet plant currently under construction in Arkhangelsk, Russia. Total investment for the project is estimated to be around 12 million Euro. The pellet plant, being built by engineering firm Hekotek at the site of RusForest's existing sawmill, will have an annual production capacity of up to 100,000 tonnes and allow the company to monetise its sawmill by-products by exporting wood pellets to Europe. The company expects the pellet plant to be operational during the first quarter of 2014.

http://www.bioenergy-news.com/index.php?/Industry-News?item_id=6822

\$100 million green energy megafund launched by science and investment experts in Malaysia and Japan

Malaysia has partnered with Japan-based Asian Energy Investments Pte Ltd. (AIE) in a \$100 million investment mega-fund to accelerate the national and regional development and manufacture of green energy products and businesses. Malaysia-based fund management company -- Putra Eco Ventures Inc. -- will both channel the investments and provide business consultancy services to green technology companies.

The Fund will focus on investments in small- to mid-size technologies and enterprises, according to proponents led by Dr. Zakri Abdul Hamid, Science Advisor to the Prime Minister of Malaysia, and Dr Kiyoshi Kurokawa, Chairman of AEI and former Science Advisor to the Prime Minister of Japan.

http://www.eurekaalert.org/pub_releases/2013-09/tca-mg092213.php

Research & Development

North America

WSU Tri-Cities to lead national research on aviation biofuels

Washington State University Tri-Cities will be leading a new research group that is expected to help the aviation industry across the United States. Researchers at 16 universities across the country will be working to create the next generation of jet fuel technology - biofuel, and researchers with the Massachusetts Institute of Technology and WSU Tri-Cities will be leading this game-changing work.

Researchers will be working to create alternative, sustainable jet fuel technology. Alternative biofuel will improve the air quality, reduce green house gases and it is cheaper than jet fuel - which is skyrocketing in price. The FAA is committed to spending at least \$40 million on this research over the next ten years.

<http://www.kvewtv.com/article/2013/sep/13/ws-u-tri-cities-lead-national-research-aviation-bio/>

Study suggests Algae biofuel reduces CO2 emissions by 68% more than petroleum counterparts

The study published by Algae Biomass Organization (ABO) showed that algae biofuel is approaching a similar Energy Return on Investment (EROI) as conventional petroleum. ABO's Executive Director Mary Rosenthal said algae-based fuels will be a long-term, sustainable source of fuels with significant emission reductions, a positive energy balance, nutrient recycling and CO2 reuse.

http://zeenews.india.com/news/eco-news/algae-biofuel-reduces-co2-emissions-by-68-more-than-petroleum-counterparts-study_878056.html

Europe

Cal Poly gets \$1.5 million for algae biofuel research

According to Department of Energy, Cal Poly will receive \$1.5 million to fund biofuel research. The research projects build on the Energy Department's effort to bring next-generation biofuels to the forefront, with the goal of producing competitive biofuels by 2017 and algae biofuels by 2022.

The Department of Energy also awarded two businesses, Sapphire Energy of San Diego and Hawaii Bioenergy of Lihue, Hawaii, with money for research.

<http://www.sanluisobispo.com/2013/09/09/2675296/cal-poly-biofuel-research.html#storylink=cpy>

Yeast uses carbon dioxide to boost bioethanol production

Researchers at the Delft University of Technology introduced four genes from bacteria and spinach that enables production of bioethanol with yeast by using carbon dioxide. Because of this intervention, the bioethanol yield from the process is eleven per cent higher, while the production of glycerol is ninety per cent less. A patent for the discovery has already been applied for, and the next step is to scale the process up, in cooperation with industry. The researchers believe that it will be possible to apply the process on an industrial scale within a few years.

[**http://phys.org/news/2013-09-yeast-co2-boost-bioethanol-production.html**](http://phys.org/news/2013-09-yeast-co2-boost-bioethanol-production.html)

Climate & Environment Change

India

US environment group seeks India-US cooperation on climate change

US environmental action group has outlined three key areas for India US collaboration: energy efficiency, growing solar energy markets, and preparing communities to sustain the impacts of climate change.

http://www.business-standard.com/article/current-affairs/us-environment-group-seeks-india-us-cooperation-on-climate-change-113092000361_1.html

India reclaiming global leadership on climate change

India's leadership will now be possible to quickly complete the consensus to phase out hydrofluorocarbons(HFCs), providing the world with significant near-term climate protection through a treaty that never fails.

<http://www.smetimes.in/smetimes/in-depth/2013/Sep/24/india-reclaiming-global-leadership-on-climate-change630200.html>

India, Australia collaborate on climate change science

Researchers from the Kerala Veterinary and Animal Sciences University in India and agriculture experts from the University of Western Australia (UWA) are working together to determine the physiological and genetic basis for adaptation in animals as a response to increasing global temperatures using modern gene expression and protein profiling.

<http://www.universityworldnews.com/article.php?story=20130927091357222>

Experts highlight issues relating to climate change

CII is to lead the industry action on climate change initiatives and partner with various State governments . A climate change enclave organised by CII emphasised laid on importance of forging linkages between private-public partnership model and climate change initiatives.

<http://www.thehindubusinessline.com/news/states/experts-highlight-issues-relating-to-climate-change/article5186615.ece>

Indian scientist awarded top UN prize for climate change research

Veerabhadran Ramanathan receives the United Nations Champion of the Earth award for his research and climate action work on reducing black carbon emissions, helping the urban poor avoid respiratory illnesses and loss of livelihood. Along with Dr Ramanathan, the following are the

rest of the 2013 Champion of the Earth awardees:

- 🕒 Carlo Petrini, founder of the Slow Food Movement, Italy (Inspiration and Action)
- 🕒 Martha Isabel Ruiz Corzo, director of the Sierra Gorda Ecological Group, Mexico (Inspiration and Action)
- 🕒 HE Izabella Teixeira, Minister of Environment, Brazil (Policy Leadership)
- 🕒 HE Janez Potoènik, European Commissioner for the Environment, Slovenia (Policy Leadership)
- 🕒 Brian McClendon, Google Earth, USA (Entrepreneurial Vision)
- 🕒 Jack Dangermond, founder of the Environmental Systems Research Institute, USA (Entrepreneurial Vision)

<http://www.eco-business.com/news/indian-scientist-awarded-top-un-prize-climate-change-research/>

North America

Obama proposes cuts in power plant CO2 emissions to tackle climate change

The Obama government proposed limits on carbon dioxide emissions from new US power plants Friday, taking a big step toward fulfilling a long-sought goal of fighting climate change by reducing greenhouse gas emissions.

Power plants today are the largest concentrated source of emissions in the United States, together accounting for more than one-third of all domestic greenhouse gas emissions. The typical coal-fired power plant emits around 3.5 million tons of CO2 to the atmosphere annually, with the US fleet venting about 2.3 billion tons of heat-trapping carbon dioxide gas into the atmosphere each year. President Obama said the new EPA rules were in line with his mandate to address the climate change problem by reducing greenhouse gas emissions.

<http://www.csmonitor.com/Environment/2013/0920/Obama-proposes-cuts-in-power-plant-CO2-emissions-to-tackle-climate-change>

'Black holes' of the ocean could curb climate change

<http://www.newscientist.com/article/dn24274-black-holes-of-the-ocean-could-curb-climate-change.html>

Asia

China expands partnership with California to combat climate change

MOU has been signed to boost bilateral cooperation on climate, clean energy and low carbon development, which includes a range of activities, such as mitigating carbon emissions, strengthening performance standards to control greenhouse gases, designing and implementing carbon emissions trading systems, sharing information on policies and programs to strengthen low carbon development.

<http://english.peopledaily.com.cn/90883/8400677.html>

Asia-Pacific nations at UN call for urgent global approach to mitigate climate change

Asia-Pacific countries, concerned about rising sea levels, took the issue to the stage of the United Nations General Assembly to call for an urgent global approach to mitigate climate change, voicing concern at the lack of progress so far.

<http://www.un.org/apps/news/story.asp?NewsID=46125&Cr=climate+change&Cr1=>