Class action in US accuses Green Building Council of fraud in performance standards

26/10/2010

A class action lawsuit filed in New York accuses the US Green Building Council and its founders of misleading consumers and fraudulently misrepresenting the energy performance of buildings certified under its LEED ratings system.

The lawsuit, filed on behalf of Henry Gifford, founder of Gifford Fuel Saving Inc., also charges the LEED “green” construction standards actually harm the environment by leading consumers away from using proven energy-saving strategies.

The Council has yet to formally respond to the suit, which was filed on 8 October. Contacted at the Council's Washington, D.C. office, Ashley Katz, the spokeswoman for the organisation, declined to comment at length, citing the sensitivity of ongoing litigation. However, she told *Renewable Energy magazine*, "We are looking into the matter and will respond in due course".

Gifford said the US Green Building Council’s proprietary line of products, including its LEED green building certification program, its courses and workshops, and its annual Greenbuild conference have supplanted building codes in many jurisdictions within the US, undermined marketplace competition, and unfairly obscured other building standards that “are proven – unlike LEED – to reduce energy use and carbon emission[s]”.

These standards include U.S. Dept. of Energy’s Energy Star program, ASHRAE standards, Passivhaus/Passive House USA standards, and Air Barrier Association of America, the complaint said.

In seeking class-certification for the suit, Gifford asked Federal Judge Leonard B. Sand in the Southern District of New York to consider as injured parties consumers who paid to have their properties certified green by the US Green Building Council, taxpayers whose municipalities spent public money on green buildings, and building designers working outside the Council’s purview.

All have been hurt, the lawsuit claims, by the Council’s “monopolization of the market through fraudulent and intentionally misleading representation in the marketing and promotion of LEED product”.

Gifford said the US Green Building Council distorted data about the effectiveness of its standards – which generally assert that LEED buildings are 25 percent to 50 percent more energy-efficient than non-LEED standard buildings – by failing to follow generally-accepted standards for statistical analysis.

Further, the suit said the, "[US Green Building Council] claims that the LEED system is 'providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings… '

"This claim is false on its face in several ways: 1) LEED certification does not require any verification of the data submitted in certification applications and does not require actual energy use data at any stage; 2) LEED certification is not based on actual building performance data but rather on projected energy use; and 3) [US Green Building Council] does not have the staff or expertise to evaluate these applications.

"Far from providing 'verification that a building or community was designed and built using strategies aimed at improving performance,' USGBC essentially allows applicants to self-certify," the complaint said.

Gifford seeks injunctive relief, compensatory and punitive damages for members of the class. He is represented by attorney Norah Hart in New York.

Canadian wind farm secures $114.6 million in construction, operational financing

26/10/2010

Manulife Financial, the Canadian financial services company, has completed $114.67 million (€$82.7 million) in financing for the construction and long-term operation of a 48.6 MW wind farm by International Power Canada in south-western Ontario.

Manulife formed and led a syndicate of Canadian life insurance companies to provide construction and term loans for 21 years to support the Pointe-Aux-Roches Wind Power Project. Manulife is the arranger and agent with an investment of $58.6 million (€42.3 million).

"We are very pleased to be entrusted by International Power to arrange and provide financing for their Pointe-Aux-Roches wind power project," said Bill Sutherland, Senior Managing Director and head of its Canadian project finance team for Manulife Financial.

"As one of Canada's industry leaders in financing renewable energy generally, and wind energy projects in particular, Manulife supports projects like Pointe-Aux-Roches that are environmentally friendly and help buttress the long-term economic growth of Ontario, Canada and North America," he said.

The 48.6 MW Pointe-Aux-Roches Wind Power Project consists of twenty-seven, 1.8 MW wind turbines approximately 35 km east of Windsor, Ontario (Canada).

The project has already received required environmental permits and approvals and construction of the project is expected to be completed in 2011.

Construction is expected to be completed in 2011. The Ontario Power Authority signed a feed-in tariff contract to buy some of the output from the project.

International Power Canada, Inc. (formerly AIM PowerGen Corporation) is a wholly owned subsidiary of International Power plc, a publicly traded UK based power generation company.

Based in Toronto, Ontario (Canada), IPC is one of Canada's largest independent wind power developers with a significant pipeline of potential wind and solar projects at various stages of development throughout the country.

To date, it has completed construction of 178 MW of wind power projects in Ontario. Electricity generated by the Point-Aux-Roches Wind Power Project will be sold to Ontario Power Authority under a Feed-in-Tariff contract.

"The Pointe-Aux-Roches financing represents the first financing under Ontario's new Feed-in Tariff program," said Mike Crawley, President of International Power Canada. "We are pleased that Pointe-Aux-Roches is moving forward and will soon be providing clean, renewable energy to the province."

"We are deeply committed to this business and appreciate Manulife's support of the industry and its expertise in providing financing on this project," Crawley added.

This wind farm financing is one of six that Manulife expects to close in 2010 in North America. The company anticipates completing similar renewable power project financings in 2011.

Manulife is a leading arranger and provider of debt financing for renewable energy projects in Canada. In the past five years, it has arranged $1.8 billion and provided $840 million in financing for 13 projects in Canada.

European Investment Bank provides €560 million loan to Egyptian power sector

25/10/2010

The European Investment Bank will provide a €560 million support package for priority electricity generation and transmission investment to Egypt, a loan, which alongside an additional €20 million grant from the European Union, is expected to bolster the nation's use of renewable energy, while improving its energy efficiency.

The monetary support is intended to strengthen and expand the Egyptian electricity grid and connect wind farms currently being constructed on the Red Sea coast. Increased use of renewable energy is a priority of both the European Investment Bank and the Union for the Mediterranean.

The move brings the European Investment Bank's lending in Egypt this year to a record €900 million.

H.E. Hassan Younis, Egypt's Minister of Electricity and Energy and Marc Franco, European Union Ambassador to Egypt, participated in the signing for the EIB loans and also signed a Financing Agreement for the European Union grant, which will support the Egyptian Power Transmission Project.

"Increased electricity generation capacity and contribution to an efficient transmission network resulting from the projects signed today will contribute to economic prosperity of Egyptians across the country," said Philippe de Fontaine Vive, European Investment Bank Vice President responsible for Mediterranean partner countries. "We welcome the two projects' contribution to improved energy efficiency and enabling greater use of renewable energy in the country.

"Record European Investment Bank financial support both to Egypt and the Egyptian energy sector represent important milestones in the strong relationship between Egypt and Europe," he said.

Ambassador Marc Franco, Head of the European Union Delegation to Egypt, said the realization of the Egyptian Power Transmission Project demonstrates the success of the EU's Neighbourhood Investment Facility.

"The NIF shows how design of financing packages offered by European Development Finance Institutions can be tailored to address Egypt's specific infrastructure financing needs, in particular the energy sector," he said.

The €260 million EIB loan for the Egyptian Power Transmission Project forms part of a financing package under the Neighbourhood Investment Facility, alongside loans from Germany's KfW and Agence Francaise de Developpement, as well EU grant funding.

This is the first project in Egypt where the EIB has led financing under the Neighbourhood Investment Facility.

Construction of the 1500 MW Giza North Power Plant will be supported by a €300 million EIB loan. The combined cycle gas fired plant 30km northwest of Cairo, to be operated by the Cairo Electricity Production Company, is expected to be commissioned in 2014. It is expected that the plant construction will benefit from technical assistance to promote more energy-efficient combined-cycle technology. The project will be financed by the European Investment Bank, World Bank and OPEC Fund for International Development.

Adnan Amin to serve as Interim Director-General of IRENA

25/10/2010

Adnan Amin of Kenya, a senior official in the UN Secretariat, will replace Helene Pelosse as Interim Director-General of the International Renewable Energy Agency.

The decision was announced shortly after the start of the fourth IRENA preparatory commission meeting which began on Sunday in Abu Dhabi. Amin will serve in the position until the body's first assembly meeting in 2011.

"My priority will be to put IRENA on a firm institutional footing and to develop a compelling vision for the future of renewable energy worldwide," Amin said.

Pelosse abruptly resigned from the position last week, after just 15 months on the job, and amid widespread reports that the organization, which was founded in January 2009, was experiencing profound financial difficulties.

In his introductory remarks Spanish Ambassador Rafael Conde de Saro, Chair of the Preparatory Commission, thanked Pelosse for "the hard work she has put in setting up the agency".

Amin, 53, a married father of three, was selected in August as Deputy Interim Director-General of IRENA. Adnan Amin served as the Director of the UN System Chief Executives Board for Coordination (CEB).

Prior to this, he served as the Executive Director of the Secretariat of the Secretary-General's High Level Panel on UN System-wide Coherence. He also served for several years as the Director of the New York Office of UNEP and Special Representative of the UNEP Executive Director.

In those roles, Amin was responsible for environment policy coordination, inter-agency coordination and collaboration with other UN agencies and for outreach to civil society and the private sector.

He also played the lead role in supporting the intergovernmental process to review International Environmental Governance and in the United Nations Environment Programme's participation in the World Summit on Sustainable Development.

In other IRENA news, the UAE on Monday signed the agreement for the organization's interim headquarters in Abu Dhabi.

Dr. Abdul Rahim Al Awadi, Assistant UAE Foreign Minister for Legal Affairs, said the conclusion of the agreement demonstrates the UAE's commitment to render the IRENA mission a success as this agreement forms another cornerstone in building the structure of IRENA headquartered in Abu Dhabi.

The agreement, he added, will empower IRENA with the legal basis to enjoy privileges and immunities needed to assume its functions.

The agreement is the first ever signed by a country in the region to host the headquarters of an international organisation.

The UAE government plans to relocate the agency's headquarters to Masdar, a $22 billion city outside Abu Dhabi that it says will have zero carbon emissions and is scheduled for completion in 2015.

According to IRENA's website, the organization is dedicated to "facilitating the rapid development and deployment of renewable energy worldwide".

The agency currently has 149 members, including 148 countries and the European Union. To date, 42 countries have ratified its treaty.

New report outlines plan to unleash energy efficiency opportunity in buildings

22/10/2010

Climate Strategy & Partners, a specialist consultancy in strategies relating to climate change, has issued a white paper aimed at unravelling many of the complex issues surrounding the financing of energy efficiency in buildings.

In their report, Peter Sweatman, founder and CEO of the UK-based Climate Strategy and Partners, and Katrina Managan, Fulbright Scholar and International MBA Candidate at IE Business School in Madrid, provide an in-depth review of policy and retrofit activity in the US, UK and Spain.

They then move on to a discussion on the performance of current retrofit business models, and presents their own Aggregated Investment Model, which they contend will overcome many of the structural and financial barriers in the market today.

Best of all, the paper provides all this information in an easily accessible language. As Sweatman explained, "We set out to design a solution to make it as easy to undertake and finance an energy efficiency upgrade as it is to sign up for a new credit card or take out a car loan."

According to the authors, the size of the opportunity in this sector is enormous. Buildings use 40-45 percent of the energy consumed in the US, UK, and Europe and studies show that this could be cost effectively reduced by 20-50 percent.

Energy efficiency retrofits will reduce greenhouse gas emissions and improve the energy security of any country where they are implemented by reducing energy demand. Yet, deploying energy efficiency upgrades in buildings at scale has proven elusive, to date, as there are insufficient financial resources available to energy efficiency upgrades and many stakeholders' interests in individual projects are miss-aligned.

The authors propose creating bankable energy efficiency assets that have broad access to wholesale, efficient financing in the capital markets. These assets are standardized and designed using an open-origination architecture to spur competition among many possible distributors such as banks, utilities, ESCOs and other retail outlets.

"Energy efficiency upgrades provide a win, win, win, opportunity for the economy, the environment, and energy security," Managan said. "Our recommended business model applies good sense energy conservation within the context of the energy bill itself."

The right policy framework will accelerate deployment of the Aggregated Investments Model., the authors said.

Integral to the their regulatory recommendations is the enabling of on-bill upgrade repayment and government credit enhancement to kick-start a market which is in its early stages of development.

The Climate Strategy & Partners paper is based on a detailed literature review of over 120 reports, journal articles and interviews subsequently reviewed by 35 experts selected equally from the US, UK and Spain. Expert reviewers included representatives of the key stakeholder groups, including banks, energy companies, NGOs/ think tanks and academia.

Among them was Eric Schlie, vice dean of the MBA programme at IE Business School, who said "The field of energy efficiency in buildings has received relatively little attention in recent years, and yet its importance is undeniable, which is precisely what makes this paper so timely."

Similarly enthused was José Javier Guerra, director of Gas Natural Fenosa's Energy Efficiency Centre, whose firm is underwriting the launch of the report.

"Gas Natural Group is aware that the application of retrofit energy efficiency measures in buildings requires new business models to enable society to extract the potential savings," Guerra said. "Through this report, Climate Strategy initiates the right dialogue so that the various stakeholders, agencies, energy service companies and financial institutions can build a common language and understanding for that purpose."

Private equity firm invests $100 million in Chinese energy efficiency company

22/10/2010

Private equity firm Silver Lake has invested a reported $100 million in Nobao Renewable Energy Holdings, a Chinese provider of energy-efficiency technologies. The investment is the first by the $14 billion firm in China’s clean-energy sector.

"Nobao Renewable Energy is China's industry leader in geothermal technologies," said Eric Chen, managing director of Silver Lake’s Hong Kong office, in a statement.

“[Given the] increasing demand for clean technology, and the Chinese government's focus on a greener economic future, we are optimistic about Nobao's prospects and believe that the company is well-positioned to continue its impressive growth,” he said.

Based in Shanghai, Nobao Renewable Energy Holdings Limited is a leading provider of fully-integrated clean energy management solutions in China utilizing ground source heat pump (GSHP) technologies.

The company offers integrated energy management solutions for a wide variety of buildings, primarily through energy management contracts by designing, manufacturing and installing GSHP heating, ventilation, air conditioning and hot water supply systems as well as providing post-installation maintenance services typically over 10 to 20 years.

Its three wholly-owned subsidiaries are Eastern Well Holdings Limited, Nuoxin Energy Technology (Shanghai) Co., Ltd., and Jiangxi Nobao Electronics Co., Ltd.

Silver Lake has not provided any details on the size of its stake in the company, but it did sing its praises, noting that Nobao's fully-integrated geothermal technology typically can save up to 70 percent of energy consumption compared to conventional fuel- and electricity-based systems.

Founded in 1999, Silver Lake is considered a leading investment firm in the technology sector and among its most notable investments are Avaya, Sabre Holdings, UGS Corp., Skype, Seagate Technology, and Instinet.

USDA announces $1.5 billion in assistance for biofuels

21/10/2010

The US Department of Agriculture (USDA) has announced new measures including a Biomass Crop Assistance Program that will help create a US biofuels industry. The USDA also revealed that a new agreement with the Federal Aviation Administration will also promote production and demand for biofuels.

As part of the Obama Administration's effort to promote production of fuel from renewable sources, create jobs and mitigate the effects of climate change, US Agriculture Secretary, Tom Vilsack, has announced a series of measures during a speech to the National Press Club in Washington. The total package to help bring next-generation biofuels to market amounts to $1.5 billion.

"Domestic production of renewable energy, including biofuels, is a national imperative and that's why USDA is working to assist in developing a biofuels industry in every corner of the nation," said Vilsack. "By producing more biofuels in America, we will create jobs, combat global warming, replace our dependence on foreign oil and build a stronger foundation for the 21st century economy."

The measures include the publication of a final rule to implement the Biomass Crop Assistance Program (BCAP). Under the BCAP final rule, USDA will resume making payments to eligible producers. The program had operated as a pilot, pending publication of the final rule. Authorized in the Food, Conservation, and Energy Act of 2008, BCAP is designed to ensure that a sufficiently large base of new, non-food, non-feed biomass crops is established in anticipation of future demand for renewable energy consumption.

"The Obama Administration is aggressively supporting our nation's farmers, ranchers and producers of biofuels as they work to bring greater energy independence to America," Vilsack said. "BCAP will help the nation's power, biobased product, and advanced biofuel industries produce energy from sustainable rural resources and create jobs that will stimulate rural economies across the nation."

BCAP uses a dual approach to support the production of renewable energy. First, BCAP provides assistance for the establishment and production of eligible renewable biomass crops within specified project areas. Producers who enter into BCAP contracts may receive payments of up to 75 percent of the cost of establishing eligible perennial crops. Further, they can receive payments for up to five years for annual or non-woody perennial crops and up to 15 years for woody perennial crops. FSA is accepting project area proposals and, after project area proposals have been approved, eligible producers may participate by enrolling at their FSA county office.

In addition, BCAP also assists agricultural and forest landowners and operators by providing matching payments for the transportation of certain eligible materials that are sold to qualified biomass conversion facilities. The facilities convert the materials into heat, power, biobased products or advanced biofuels.

Developing aviation biofuels

The Secretary also announced jointly with the Federal Aviation Administration (FAA) a five year agreement to develop aviation fuel from forest and crop residues and other "green" feedstocks in order to decrease dependence on foreign oil and stabilize aviation fuel costs. Under the partnership, the agencies will bring together their experience in research, policy analysis and air transportation sector dynamics to assess the availability of different kinds of feedstocks that could be processed by bio-refineries to produce jet fuels.

The participants will develop a tool to evaluate the status of different components of a feedstock supply chain, such as availability of biomass from farms and forests, the potential of that biomass for production of jet fuel, and the length of time it will take to ramp up to full-scale production. The agencies already have existing programs and collaborative agreements with private and public partners and resources to help biorefiners develop cost-effective production plans for jet aircraft biofuels.

This cooperative agreement supports a larger research plan led by USDA through its five Regional Biomass Research Centers, which will help accelerate the development of a commercial advanced biofuels industry across the United States. Just as important, the plan sets out to include as many US rural areas as possible to maximize the economic benefits of biofuel production across the country. The Centers will provide the critical mass needed to develop high-performance teams that will guide biomass research to address needs in both the public and private sector, including commercial aviation, military transportation, and other activities.

The Secretary also discussed a biofuels report prepared by USDA's Economic Research Service (ERS) that says replacing more petroleum with cost-competitive domestic biofuels reduces crude oil imports, thereby lowering prices for energy and benefiting the US economy. The report also found that the biofuels industry becomes more productive as cost-reducing technology is applied, which results in higher wages for workers; gains in GDP and real income are driven largely from the contribution from technological progress in biofuels, which increases the productivity of the economy; and next generation biofuels are considered to be a decreasing cost industry. This means that the cost of producing ethanol will decline as output increases.

Vilsack calculates that US consumption of biofuel would reach 36 billion gallons by 2020 thanks to the measures announced today.

UAE eyes investments in Indonesian geothermal industry

21/10/2010

The United Arab Emirates is eying investments in Indonesia's geothermal industry, according to Indonesian Foreign Minister Marty Natalegawa. His pronouncement came after a day of meetings with UAE officials in Jakarta.

"Indonesia has a huge potential to be the world's largest geothermal energy user while UAE, as chairman of the International Renewable Energy Agency, is willing to promote the use of environmentally friendly energy to the world," Natalegawa told the Xinhua News Agency.

During his visit to the Indonesian capital this week, Sheikh Abdullah bin Zayed Al Nahyan praised the country's efforts to increase the use of renewable energy resources and its bid to become one of the biggest geothermal players in the world.

President Susilo Bambang Yudhoyono earlier said the country aimed to become the world's top user of geothermal energy.

Indonesia currently ranks third behind the US and the Philippines in terms of geothermal energy generation.

To accelerate the development of geothermal power plants, the government would look to cooperate with international financial institutions and donor countries, Yudhoyono said.

The Indonesian government is looking to attract around $12 billion n investment for its geothermal sector to boost geothermal energy production to 3,977 megawatts as part of phase two of its 10,000 MW power development project.

Japan's Solar Frontier to co-develop IBM's CZTS solar cell technology

21/10/2010

Solar Frontier, a subsidiary of Japanese energy business Showa Shell Sekiyu K.K., will jointly develop thin-film solar cell technology devised by IBM based on copper, zinc, tin, sulfur, and selenium (CZTS).

The announcement comes roughly eight months after IBM announced record efficiency of 9.6 percent for CZTS-based solar cells, up 40% on previous CZTS solar cells.

The new partnership will couple IBM's research with Solar Frontier's thin-film development and manufacturing capabilities to create a cost-competitive solar technology that is inexpensive and uses earth-abundant (indium-free) materials.

A similar agreement between IBM and DelSolar Co Ltd of Hsinchu Science-Based Industrial Park (Taiwan) was announced in September.

"Solar Frontier is one of the world's leading experts in CIS-based thin-film solar panels," said T.C. Chen, VP of science & technology IBM Research. "Adding Solar Frontier's deep expertise in thin-film-based solar device technology to this project will strengthen the collaborative effort we began in this area with [process equipment maker] Tokyo Ohka Kogyo Co Ltd [in mid-2008] for developing chemistry and tooling expertise; and more recently adding DelSolar's solar module and manufacturing expertise."

"This team will significantly increase our ability to create CZTS photovoltaic technology that achieves sustainable grid parity," Chen added.

Much of the research will take place at IBM's Thomas J. Watson Research Center in Yorktown Heights in NY (US).

CZTS-based technology uses materials that avoid heavy metals and are readily available at a lower cost. By virtue of these materials, the goal of the project is to create next-generation solar technology that lowers the cost of producing electricity, enabling solar energy to become a ubiquitous alternative to carbon-based energy sources.

"Solar Frontier's extensive experience in the R&D of CIS thin-film photovoltaic technologies has delivered numerous conversion efficiency breakthroughs that have resulted in world-class records," said the firm's chief technology officer, Satoru Kuriyagawa. "We are interested in exploring CZTS for its evolutionary compatibility with our CIS thin-film technology. The goals of the project correspond with Solar Frontier's mission to combine both economical and ecological solar energy solutions."

Solar Frontier currently has two manufacturing facilities in Miyazaki, Japan. A third plant with annual capacity of 900MW will become operational in 2011, making it the world's largest PV production facility and bringing Solar Frontier's total capacity to 1GW -- expected to be the world's largest CIS PV capacity.

EU summit to use Kyoto extension offer to promote emission cuts

21/10/2010

A European Union summit later this month will use a conditional offer to extend the Kyoto Protocol on CO2 emissions after 2012 as bait to attract other states to accept emissions cuts, according to a report on monstersandcritics.com. The next round of all-party talks is scheduled for December in the Mexican resort of Cancun.

Last year's climate-change talks in Copenhagen last year were stymied by resistance from the US and other developed nations. This year, EU officials hope to use a proposed extension of the Kyoto Protocol to gain a little more leverage.

According to published reports, the EU will confirm a willingness to consider a second commitment period under the Kyoto Protocol, but it will only do so, a draft statement prepared for the summit says, "Provided the (EU's) conditions ... are met by our international partners."

That protocol, agreed to in 1997, bound developed economies such as the EU to reduce emissions by specified amounts before 2012.

The wording of the draft, which sets out the EU's negotiating position for Cancun, makes it clear that the bloc is willing to accept that demand. But for the first time, it makes it equally clear that the EU will only be willing to consider further Kyoto targets if the developing states themselves accept ambitious climate targets.

Diplomats say that is a bid to win leverage over states such as China, Brazil and India, who are not bound by Kyoto, but want developing states to stick to it., the monstersandcritics.com report said.

The EU has already promised to cut its own emissions to 20 per cent below 1990 levels by 2020, regardless of the protocol's fate.

Photovoltaic poised to become mainstream energy source in Sunbelt countries by 2030

20/10/2010

Countries along the globe's Sunbelt (those located +/- 35° latitude around the equator) present a unique opportunity in terms of the competitive potential of photovoltaic solar, and the sector could be its major source of power by 2030, according to the European Photovoltaic Industry Association.

In a new study, the organisation cites the fact that 75 percent of the world's population lives in the region and the fact that it accounts for 40 percent of global electricity demand, as significant, but not the only reasons for their sunny prediction.

Equally critical to the sector's potential future growth are the often high energy prices consumers and businesses pay in the region, and its being blessed with intense solar irradiation.

The report, Unlocking the Sunbelt potential of Photovoltaics analyses 66 out of the 148 countries in the Sunbelt, representing over 5 billion inhabitants and 95% of the region's total population. Despite the exceptional solar irradiation registered in these countries, at present they represent only 9 percent of the global installed PV capacity, it said.

The study also shows that the PV potential of the Sunbelt countries could range, depending on the scenario, from 60 to 250 GW by 2020, and from 260 to 1,100 GW in 2030, representing 27-58 percent of the forecasted global installed PV capacity by then.

Under these three potential scenarios (base, advanced and paradigm shift) and through the global scale effect, prices of PV systems by 2030 are expected to decrease by up to 66% compared to their current levels.

The EPIA also predicts that generation costs of PV electricity should drop to a range of 6 to 12 €c / kWh by 2020 -- making it highly competitive with all peak generation technologies -- and as low as 4 to 8 €c/kWh in 2030, making it also widely competitive with most mid-load generation technologies.

In addition to providing a detailed economic analysis supporting the various deployment scenarios, the study also presents regional perspectives in four geographical areas: Mediterranean & Northern Africa, South East Asia, China & India, and Latin America.

Abu Dhabi to host fourth IRENA preparatory commission next week

20/10/2010

The International Renewable Energy Agency (IRENA) will hold its fourth preparatory commission meeting in Abu Dhabi, 24-25 October. The event is expected to draw 400 delegates from more than 100 member countries.

The meeting comes on the heels of the abrupt departure of Interim Director General, Hélène Pelosse, who stepped down earlier today amid reports of continuing funding shortfalls for the entity.

According to The National, Abu Dhabi's state newspaper, a delay in a $ 3 million contribution from the US and $2.1 million from Japan have contributed to a budget shortfall of $8.4 million.

The departure of Pelosse, who had held her post for 15 months, reportedly came as something of a shock to the agency, which was expected to confirm her as permanent director next year.

In a written statement, IRENA said a new Interim Director General will be nominated at next week's meeting.

Also on the meeting's agenda are decisions related to IRENA's 2001 work programme. The discussions will be based premised on the agency's having an $18 million budget, will 38% coming from contributions from member states and 42% from the United Arab Emirates.

The final 26% of the budget will come from German and Austrian bids for the Boon Innovation & Technology Centre and the Vienna Liaison Office, the agency said.

Members will also begin to define the international organization's permanent institutions, and draft rules and procedures for the election of its Council and Assembly. The members will also set a date for the first formal assembly meeting.

Finally IRENA will present the winner of its "Solar for All" contest. Greenlight Planet, a US-based start-up, won the design contest with its innovative solar-powered lamps. Peter Heller, executive Director of the Canopus Foundation, will present the contest and the company.

IRENA is currently based in a temporary office on the Abu Dhabi corniche and is expected to move into permanent headquarters in Masdar City, Abu Dhabi's clean-technology research and development hub, in 2015.

Nova Scotia gives conditional approval to $208.6 million biomass project

19/10/2010

Energy regulators in Nova Scotia (Canada) approved a $208.6 million biomass project, but attached several conditions they said will protect energy customers from bearing the brunt of any cost overruns or an outright failure of the plant.

Nova Scotia Power Inc. and NewPage Port Hawkesbury Corp. asked the province's utility and review board to approve a plan to burn 650,000 metric tons of wood a year to fire a steam generator at a Cape Breton paper mill.

Nova Scotia Power, a private company, would spend $200 million towards the project while NewPage would construct and operate it, and supply fuel.

But the proposal met with stiff resistance from environmentalists, who said the plan would put a big demand on overtaxed forests and could lead to the depletion of some woodlands that are already listed as endangered.

In the end, the board said in its 50-page decision that it was persuaded by the applicants that there is a sufficient supply of wood in the province. In response to concerns that the facility would result in higher prices for public utility customers, the board ruled that any projected price increases or costs associated with the failure of the plant have to be borne by shareholders and can't be passed on to consumers.

The project is expected to produce about 60 megawatts of power — about three per cent of the province's total electricity needs or enough to supply energy for about 50,000 homes. Representatives of NewPage said it was studying the decision, but expected construction to take about 27 months.

Energy storage market for wind power projected to reach $1.1 billion by 2015

19/10/2010

Market opportunities for energy storage in the wind power business will reach $1.1 billion by 2015, according to industry analyst NanoMarkets. In its new report, Energy Storage Opportunities in the Wind Power Industry, the firm predicts that the growing market for energy storage systems will remove some of the major obstacles currently tamping down growth in the wind energy sector.

While harnessing the potential of wind power is a key energy goal of governments around the world, the sector suffers from the fact that wind energy is non-coincident, meaning it tends to be generated at times when it cannot be used or can only be sold at off-peak rates, NanoMarkets' analysts said.

Other challenges include the highly unpredictable and uncontrollable nature of wind, and the fact that areas that have the highest potential for wind energy generation are also often the most remote from end users like homeowners, factories and office buildings.

Still, groups like the American Wind Energy Association in the US contend that the amount of wind energy available is much greater than the national demand in energy.

And therein lays opportunity, the NanoMarkets' analysts said.

According to the report, "Energy storage adds value and reduces risk for the wind energy industry by decoupling wind energy production and energy demand."

"It makes wind-generated energy less dependent on the weather, enabling it to be sold at better prices," the report continued. "Storage also helps optimise the use of scarce grid capacity, improving the opportunity for selling wind generated energy to users in different parts of the country or even different countries."

As a result, the analysts conclude, "there is a large and growing opportunity for energy storage firms of many kinds to sell into the rapidly growing wind energy sector."

The report goes on to analyse and quantify the requirements for wind-power related storage and where in the wind power industry purchases of energy storage systems are likely to be made. It also examines the many different energy storage technologies that might serve the needs of wind storage, ranging from established technologies such as flywheels to lithium ion batteries.

The report concludes with a discussion of the energy storage needs for wind power will vary depending on what part of the grid they are deployed in; transmission, distribution or micro grids.

Malaysia to implement feed-in tariff as part of renewable strategy

18/10/2010

The government of Malaysia will implement a feed-in tariff to allow electricity generated from renewable sources by individuals and independent providers to be sold to the nation's utilities. The plan, which is being rolled into Malaysia's proposed Renewable Energy Act, is expected to go before its Parliament next month.

The feed-in tariff is part of the Government's plan to boost renewable energy contribution to Malaysia's electricity-generation mix from less than 1 percent in 2009 to around 5.5 percent by 2015 and to 11 percent of all electricity generated nationwide in 2020.

“Once the act is passed, we will be setting up a new agency, Sustainable Energy Development Authority (SEDA), to oversee the implementation of renewable energy and then only we can make decision on the Feed-in-Tariff mechanism,” said Energy, Green Technology and Water Minister Datuk Seri Peter Chin Fah Kui.

While many of the details of the nation’s renewable energy plan have yet to be worked out, Chris Eng, an industry analyst with OSK Research, worried that the feed-in tariff might mean higher energy prices for consumers.

In an interview with the Malaysian Star newspaper, Eng said under the plan, “the national utility would be obliged to buy renewable electricity at above-market rates set by the government over a specific period of time from the day the system is connected to the grid.”

‘’The utility would be authorised to pass on this cost to all electricity consumers through their regular electricity bills,’’ he said

Eng estimated that the increase could be between one percent and five percent.

World Knowledge Forum told collaboration, feed-in tariffs key to renewable sector growth

18/10/2010

Collaboration in the private sector, and government officials with the “courage” to adopt feed-in tariffs, are essential to fostering fuel innovation and accelerating the green car evolution, said panellists at the World Knowledge Forum 2010 in Seoul (Korea).

“Materials expertise and collaboration are fundamental to fuelling the materials revolution the industry needs,” said Diane H. Gulyas, president of DuPont’s performance polymers division.

Gulyas noted that the need to reduce dependence on fossil fuels is spurring innovation in materials to lightweight cars to reduce fuel consumption.

As an example, she pointed to DuPont™ Zytel® PLUS nylon, which she said was invented in response to industry demand for long-term heat and chemically resistant plastics.

“Using Zytel® PLUS nylon to replace metal in the targeted applications will eliminate 11 kilograms per vehicle,” Gulyas said. “Apply that to the 72 million engines scheduled for 2011 and we can eliminate the need for 144 million gallons of gas – or 3 million barrels of crude oil.”

But collaboration will only take the industry’s entrepreneurs so far, said Soren Hermansen, a developer of the Samso Island energy-independent community in Denmark.

Government involvement is also essential to developing the alternative fuel sector, he said.

Hermansen said Samso Island has succeeded in fuelling itself solely by blending renewable energy sources – including wind turbines, biomass and other sources -- and has been able to generate an energy surplus.

“In this mix of fuels, you can actually combine many things and replace a significant amount of fossil fuels,” Hermansen said.

Hermansen said feed-in tariffs are vital to the development of alternative fuels due to competition from fossil fuels.

Feed-in tariffs keep the price of energy generated by renewable energy sources fixed for a period of time, so that the prices are independent of energy market swings. They allow investors to know prices for their energy for the immediate future.

In this respect, Hermansen said, “brave politicians” are needed to enact the policies necessary to support renewable energy.

The future will be an “energy mix” discussion

Asked whether renewable energy will ever completely replace fossil fuel, Sean Sutton, president of Vestas Asia Pacific Wind Technology Systems, a wind energy company, said in his view it would be more productive – and realistic – to have “an energy mix discussion.”

Sutton talked about the wind/water power mix at New Zealand’s Waipori Hydropower Station and Mahinerangi Wind Farm as such a blend of energy sources. There, the two utilities are connected on the same grid to deliver power.

“The wind here can be complementary to other power sources such as hydro as evidenced in this case,” Sutton said. “So when hydro storage and wind conditions are both plentiful, they can provide excellent peaking capacity into the grid.”

Sutton spoke about the efficiency of Vestas’ wind power, saying 80 percent of the materials used in its wind turbines are recyclable. He added that the cost of its turbines remains steady in contrast to the rising costs of fossil fuel-based energy sources.

But cost can still be a barrier to the replacement of fossil fuels by renewable energy. Panellists agreed that government cost structures should be set so the price of kilowatt per hours produced by wind turbines remains fixed for a number of years. This way, the price of energy is not determined by the market and investors can know prices for a set number of years.

Nova Scotia breaks new ground with first-ever small wind power feed-in tariff in Canada

15/10/2010

The province of Nova Scotia has adopted a Renewable Electricity Plan that will include Canada's first-ever feed-in tariff for small wind turbines of less than 50 kW rated capacity.

According to the Canadian Wind Energy Association (CanWEA), the move positions Nova Scotia as Canada's leader in wind energy.

Small wind energy systems have a rated capacity of 300 kW or less, and are used to power homes, farms, small businesses and off-grid communities.

"The small wind feed-in tariff will allow more Nova Scotians to take an active part in the province's renewable electricity future," said CanWEA President Robert Hornung.

"In addition to the environmental benefits of small and community wind, this measure will provide important local economic stimulus by creating jobs in the province which is already home to a leading manufacturer of 50 kW wind turbines," he said.

Earlier this week, CanWEA released a Small Wind Market Survey that showed the Canadian small wind market had grown by 55 per cent over the past two years. The survey also showed that while Canada is home to more than half of the world's manufacturers of small wind turbines in the 30 to 100 kW range, up to 87 percent of sales by its manufacturers were exports.

Wind power assessment agreement signed in Namibia

15/10/2010

Mobile Telecommunications firm MTC is providing technical support and equipment to the Namibia's National Wind Resource Assessment Project. The collaboration follows a commitment by both parties to use renewable energy to curb the African nation's growing energy deficiencies.

The project, begun by the Polytechnic of Namibia (PoN) in 2009, aims to determine the amount of wind available for conversion into electricity.

Speaking at a ceremony after the agreement was signed, Dr. Gert Gunzel, vice rector of PoN, said the research is intended to gather foundation data for the country's growing wind energy sector.

"The wind resource knowledge derived from this project will ensure investment decisions by wind energy developers are quick and less rigorous, while policy makers will be able to make informed decisions, knowing for example what kind of energy technology is to be deployed where," Gunzel said.

A report in Informante, the national newspaper of Namibia, also quotes Gunzel as expressing frustration with Namibia's current power woes.

"It is a puzzle to imagine that Namibia, with all its vast natural resources including wind solar and solid wood biomass, experiences power deficits," he told the newspaper. "In order for the optimum and sustainable development of these resources there must be solid information that institutions such as the Renewable Energy & Energy Efficiency Institute at the Polytechnic must generate."

Tim Ekandjo, chief corporate affairs officer for MTC said the company will supply and install measuring equipment on MTC masts is 16 out of a total of 18 potential measurement sites.

The company will also oversee data management and analysis and eventually develop a series of regional wind atlases. The results of the project are a set of wind resource data that will be presented in the form of regional wind atlases.

PoN's contribution is largely coming from its previous project on Renewable Energy and Energy Efficiency Capacity Building Programme funded by the Royal Danish Embassy in Pretoria.

The objective of the wind measurements is to provide data which will increase capacity at the local, regional and national levels to plan for renewable energy projects. The data will be used for large scale power development, off-grid/ mini- grid electrification, water pumping and climate change research, amongst other needs.

Farmers will use weather data while the scientific community will be keen on weather and climate data, for amongst other things, climate change mitigation and adaptation studies.

First Solar to build first thin-film photovoltaic plant in Vietnam

14/10/2010

First Solar, Inc. will build two new manufacturing plants – including its first in Vietnam -- to boost the company's annual capacity to manufacture advanced thin-film photovoltaic modules by nearly 500 MW.

The new plants (the other facility being slated for the US) are intended to help the Tempe, Arizona (US) firm keep pace with strong demand for its product.

Together, combined with previously announced expansions, will nearly double the company's production capacity from 1.4 GW in 2010 to more than 2.7 GW in 2012.

Currently capacity constrained, First Solar is also adding new manufacturing lines to existing production facilities, including a total of eight at its Kulim (Malaysia) plant, four lines in Frankfurt (Germany), and two lines in Blanquefort (France).

"These expansions provide proximity to growing demand while supporting our roadmap to drive down the cost of clean, sustainable solar electricity,' said First Solar CEO Rob Gillette. "Effective government policies provide long-term visibility and enable sustainable markets."

Site selection for the new plants has yet to be finalized. Nevertheless, the company said the projects will create 600 jobs, and will be designed to accommodate additional production capacity.

South Korea to invest $36 billion in renewable energy

14/10/2010

South Korea has unveiled a five-year plan to spend $36 billion dollars developing renewable energy. The sector is seen as the Asian nation's next economic growth engine. The plan is to transform it into one of the world's five top players in renewable energy, government officials said.

The spending initiative calls for $30 billion to be injected into the program by private industry, and an infusion of $6.3 billion from government coffers.

Under the plan, which was announced Wednesday by the South Korea Ministry of Knowledge Economy, the government will focus on solar and wind power, seeing them as being to the future what microchip development and shipbuilding as to the Korean peninsula's past.

If all goes as envisioned, ministers said, South Korea's renewable energy output should rise to about 15 percent of the global market. The investment will create 110,000 jobs and $36.2 billion in exports, they added.

The government's plan includes investing $1.3 billion in what it described as "10 fundamental technologies," including next-generation solar cells and offshore wind power, and $2.6 billion in research and development related to building a renewable technology infrastructure within the country's borders.

Presence of oil majors at upcoming World Ethanol conference signals strategic shift

5/10/2010

Once perceived as reluctant to join the ethanol fray, major oil companies are expected to be high-profile participants at the upcoming F.O. Licht's World Ethanol 2010. The conference will be held 2-5 November in Geneva (Switzerland).

Among those slated to speak at the conference are Luis Scoffone, vice president of Shell Alternative Energies, James Primrose, head of strategy at BP Biofuels, and Robert Gmyrek of PKN Orlen, who will explain why oil majors are aggressively expanding in the sector and will continue to do so in coming years.

Though initially reticent about renewables, major oil companies have been increasing their profile in the sector in the past year, driven by government mandates, a desire to diversify and promising returns on investment, according to F.O. Licht, a leading soft commodity analyst.

To illustrate, the firm points to a wave of consolidation in Brazil's sugar cane sector.

In February Royal Dutch Shell joined with one of the country's leading players, sugar and ethanol company Cosan S.A., in a U.S. $12 billion joint venture. Two months later, State-oil company Petrobras bought a share of French-owned group Tereos for U.S. $1.2 billion, and then entered into a deal with mill operator Sao Martnho S.A. that is expected to increase its sugar cane crushing capacity to 30 million metric tons by 2020.

Meanwhile, BP, which entered into its own multi-billion dollar deals in Brazil two years ago (forging partnerships with Santelisa Vale and Maeda Group) has indicated it plans to be producing 100 million tonnes of cane in a few years' time at its own and associated factories.

The moves have brought a completely new dynamic to the Brazilian cane industry, which in the past has been built around hundreds of mostly family owned companies, and the wave of consolidation is expected to continue.

In the EU, national strategies are dictating how oil companies respond to the challenge of how to introduce biofuels into the mainstream fuel supply. With National Action Plans due out this year on how countries will meet the goal of sourcing 10% of transport fuels from renewable sources by 2020 under the Renewable Energy Directive, F.O. Licht believes the foundations for even more rapid growth are being laid.

Little wonder, then the conference organizers see reason for optimism after two difficult years for the industry.

“Today’s ethanol industry is in a much better state than in 2008 when it was on the defensive politically and financially,” said Christoph Berg, Managing Director of F.O. Licht. “There is no clearer sign of the re-established self-confidence than the expectation that, for the first time ever, the global industry is likely to produce more than 100 bln litres of ethanol in 2010, a rise of 12% on the year.”

But that’s not to suggest there is only clear sailing ahead for the sector.

One area of uncertainty for the ethanol industry is the U.S., which is currently in the midst of decisive political battles that will determine which political party controls Congress for the next two years. Also pending in the U.S. is a decision on whether to extend tax breaks for ethanol, as well as import tariffs on renewables, both of which are set to expire at the end of the year.

For additional information:

World Ethanol 2010

Etrion, Phoenix Solar strike deal to build second Italian solar power station

5/10/2010

Etrion Corp., a solar power producer, and Phoenix Solar AG, a photovoltaic system integrator, have signed an agreement to build a 1.7MW solar power plant in Rio Martino (Italy).

Under the contract Phoenix Solar will design and build the plant, then provide operations and maintenance services once it opens. The facility is expected to produce more than two million kilowatt hours of electricity annually.

Phoenix Solar is already building a 3.5-MW plant for Etrion in Borgo Piave, Italy, a project that is now “well underway,” according to the company. Both projects are expected to be completed by the end of the year.

“We are pleased to contract Phoenix Solar to build another solar power plant in Italy,” said Etrion CEO Marco Northland. “The 1.7-MW park in Rio Martino, Lazio is part of our internal development portfolio and once again demonstrates our Italian team’s development capability.”

The new facility will use Trina Solar Ltd. photovoltaic panels and inverters made by SMA Solar Technology AG.

Italy is seen as a particularly fertile market for solar power due to government-mandated prices for power generated by solar panels. The Italian feed-in-tariff is a premium purchase price for solar electricity that is guaranteed by the Italian government for 20 years from the start of operations. On a related note, Etrion has completed its acquisition of 33 MW of solar power projects from US-based SunPower Corp. for cash consideration of approximately €49 million plus the assumption of the related non-recourse loan facilities.

“We are delighted to finalize this transaction,” Northland said. “We now have 40 MW of operating assets in Italy and are on track to reach critical mass.

We expect to benefit from economies of scale and increase the yield for each of these projects by implementing operational efficiencies. In a short period of time, Etrion has become one of the largest solar power producers in Italy,” he added.

The 33 MW projects, in the Lazio region outside of Rome, are expected to produce over 55 million kWh of electricity and approximately €22 million of earnings before interest, taxes, depreciation and amortization per year. Northland said.

For additional information:

Etrion Corp

Groundbreaking set for $98 million turbine drive train testing facility

6/10/2010

The Clemson University Restoration Institute will break ground October 28 on a $98 million wind turbine drive train facility at its North Charleston, S.C. campus in the United States.

Development of the facility is being funded through a $45 million grant from the US Department of Energy and an additional $53 million in private donations.

It is seen as both a milestone in the economic development in a state hard hit by the recession, and as a cornerstone of efforts to place the Southeast US at the forefront of the “renewable energy economy,” said Elizabeth Colbert-Busch, its director of business development.

Within days of announcing plans for testing facility last November, IMO Group, a German company that makes wind turbine parts, announced it was opening a plant in North Charleston that would create 190 jobs.

But Colbert-Busch boldly predicted many thousand more may be just around the corner as the Institutes 100-plus acre campus on the site of the former Charleston Navy Base becomes, in her words, “One of the most important sites for wind energy research and development in the country.” In a very real sense, the university’s own embrace of the promise of wind energy was something of a shift direction for Clemson.

From 19th century relic to 21st century technology

When it was initially given the property by the City of North Charleston and the Charleston Naval Complex Authority Redevelopment Authority, the primary focus of the campus was metals conservation work being done on the C.S.S. Hunley, a Confederate submarine in the American Civil War that sank after blowing up a Union warship off the South Carolina Coast.

But from the start, Colbert-Busch said, “this institute was clearly seen as an economic engine.” “So the intellectual brain power at Clemson said, “Okay, we know where the economy is going, and know that the number one concern in the world is energy, and the second, is water,” she said. “How do we make a meaningful contribution, while also advancing our mission as a land grant university responsible for outreach, research and economic development?”

The search for an answer to that question was spearheaded by John Kelly, the institute’s executive director, and Dr. Nicholas Rigas, director of the university’s renewable energy. As it happened, wind power had long been a focus of Rigas’s; a spate of grant applications led to the award for the test facility.

Speaking with an almost evangelical passion, Colbert-Busch spoke of how the history of the world is the history of prosperity following energy and water.

“Offshore wind farms are going to be important to all of our energy futures, but the ultimate prize is getting into the manufacturing end of the industry, to sustain our local workforce and the local economy,” she said.

“We fully expect the drive train test facility to be the focal point of a renewable energy cluster here,” she added.

In terms of the anticipated long term impact, the institute likes to benchmark itself against Denmark, a nation that’s roughly the size of South Carolina, at about the same latitude, and has a large wind energy sector in its economy.

“They say they’ve created 30,000 to 40,000 direct jobs through the growth of that energy, and while I wouldn’t be so bold as to suggest we’d create that many jobs, I certainly don’t think 20,000 wind power jobs is out of the question in the long run,” Colbert-Busch said.

Putting South Carolina on the wind sector’s radar

The testing facility will be housed in a former Navy warehouse adjacent to existing rail and ship-handling infrastructure, and will be capable of full-scale testing of the largest wind turbine drive train systems currently in development.

Already the institute has tapped about 90% of the world's top wind turbine manufacturers to serve on its industrial advisory board, Colbert-Busch said.

"They all came to Charleston, saw what we are planning, and the reaction, quite honestly, was 'Whoa… South Carolina has never been on our radar screen, but it certainly is now,'" she said.

"We believe that if a manufacturer wants to test the next generation of turbine designs, they'll literally have nowhere else to go because of the sheer size of the equipment," she said. "And if you were a manufacturer, wouldn't you want to be located close to the quality control center? "IMO Group's commitment to the region is just the start; there's no doubt in my mind that it's the beginning of the cluster," she said.

Immediately adjacent to the turbine testing facility are 111 acres primed for redevelopment by the industry. The site is currently served by a private port terminal operator, but will soon also have the new state port terminal and a rail spur to convey components to and from the area. And Colbert-Busch said Clemson's research plans don't begin and end with the turbine facility. The rendering that hangs in her offices also denotes the potential location for a wind turbine blade testing facility.

"It's a way to combine this research without advanced materials work," she said. "And wouldn't want to test all of your components in one place before shipping them directly to a wind farm in the North Sea or along the US East Coast?"

For additional information:

Clemson University Restoration Institute

New book sheds light on innovative approaches to solar power

6/10/2010

A new book by Dr. Wolfgang Palz, chairman of the World Council for Renewable Energy (Belgium), promises to shed new light on the topic of photovoltaic solar power, while celebrating and encouraging the innovation that has already made the sector of $30 billion (€21.8 billion) industry.

Power for the World, published by Pan Stanford Publishing, focuses on the scientific, technological, industrial, political, environmental and social implications of PV solar power. It

includes contributions from 41 individuals from the world of academia, industry, and government and financial services.

Organized in three parts: “The Rising Sun in a Developing World”, “Solar Power for the World” and “PV Today and Forever,” it provides a historical summary of sector, identifies its major players, and offers bold strategies for its future development and implementation. Without spoiling the narrative, it’s safe to say that Palz, bearer of an Order of Merit of the Federal Republic of Germany, believes that the promise of solar power is only beginning to be realized.

As he points out in the text, while photovoltaic technologies have been around since the 1950s, it’s only since about 2005 that the market has enjoyed exponential growth. Even so, he says, it’s still managed to create more than 100,000 jobs around the world in recent years. Power for the World retails for $79, and is intended for both professional and general readers.

For additional information:

Pan Stanford Publishing

Hemp produces viable biodiesel, study finds

7/10/2010

Researchers at the University of Connecticut in the US have found that industrial hemp has properties that make it an attractive feedstock for producing sustainable diesel fuel.

Property number one – it grows well in infertile soils, reducing competition for more fertile lands traditionally set aside for food productions.

“For sustainable fuels, often it comes down to a question of food versus fuel,” said Richard Parnas, the University of Connecticut professor who led the study. “It’s equally important to make fuel from plants that are not food, but also won’t need the high-quality land.”

Industrial hemp is grown in many parts of Europe and Asia. Fibre from the plant’s stalk is strong, and until the development of synthetic fibres in the 1950s, it was a premier product used worldwide in making rope and clothing.

Interestingly, it is now the seeds of the plant – traditionally considered a waste product – that are garnering the most attention. According to Parnas, the natural oils in the seeds have proven to highly efficient in their conversation into fuel in laboratory tests.

“If someone is already growing hemp,” he told the university’s internal publication, UCONN Today, “they might be able to produce enough fuel to power their whole farm with the oil from the seeds they produce”.

The fact that a hemp industry already exists, means that a hemp biodiesel industry would need little additional investment, he said.

For additional information:

UCONN Today

LM Wind Power announces site search for expansion in Brazil

7/10/2010

LM Wind Power, the world’s leading independent manufacturer of wind turbine blades, is considering several sites in Brazil for the location of a new facility that will expand its manufacturing base in the Americas and deliver blades to clients throughout South America.

Although the final location for the plaint has not been determined, the factory will be LM Wind Power’s first facility in Brazil and fourth in the Americas.

“A number of important customers have asked LM Wind Power to support their efforts in developing the market for wind energy in Brazil and the other countries in Latin America,” said Randy Fox, the company’s business area vice president for the Americas. “We are pleased to make this announcement which confirms our commitment to our customers, so that they can use our technology and innovation to harness wind energy profitably and with maximum operational reliability.”

LM Wind Power is currently in negotiations with several wind turbine manufacturers who have expressed a need for blades between 37 and 70 metres length for installation on turbines in this growing market for wind energy.

The new facility, which is expected to begin production in early 2012, will employ up to 300. LM Wind Power established its first factory in the Americas region in Grand Forks (North Dakota) in the US in 1998. Since then it has opened factories in Gaspé (Québec, Canada) and Little Rock (Arkansas) in the US.

For additional information:

LM Wind Power

Google buys significant stake in wind energy infrastructure off the US coast

13/10/2010

Search engine giant Google Inc. will buy a 37.5 percent stake in a new, $5 billion network of underwater transmission lines that will carry electricity into the US from wind turbines positioned off the Atlantic coast.

When completed, the Atlantic Wind Connection project will stretch 350 miles off the US coast from New Jersey to Virginia, and will be able to connect 6,000 MW of offshore wind turbines.

That's roughly equivalent to 60% of the wind energy that was installed in the entire US in 2009, and enough to serve approximately 1.9 million households, Google said.

Dan Reicher, director of Google's energy and climate projects, said in an interview with The New York Times that the project signal's the internet firm's desire "to have some real impact as we are also making serious financial returns in our energy project investing."

He added, "We couldn't be in a better place at a better moment to be making an investment like this."

Google is betting that its support will encourage other investors to back wind farming, which the Global Wind Energy Council says will generate more than 22 percent of the world's electricity in two decades.

The investment also may help the US narrow a lead held by China, which is installing more than twice the wind-generating power of the US, according to the Times.

The AWC backbone will be built around offshore power hubs that will collect the power from multiple offshore wind farms and deliver it efficiently via sub-sea cables to the strongest, highest capacity parts of the land-based transmission system.

"This system will act as a superhighway for clean energy," according to Google's company blog.

In a statement, William M. Moore, CEO of Deepwater Wind, a Rhode Island (US)-based offshore wind developer, welcomed news of the investment.

"Harvesting the clean and abundant wind resources off of America's coasts is critical to our country's economic and national security, and transmission of that clean power is a critical component to building this industry," Moore said.

"[This announcement] confirms the importance of developing the transmission infrastructure necessary to support this growing industry," he said.

For additional information:

Official Google blog

Vermont sees no conflict between feed-in tariffs and US law

13/10/2010

In a big win for Vermont's nascent feed-in tariff program, the state's Public Service Board has ruled that there is no conflict between the state's program and the US government.

A challenge by Vermont's Department of Public Service had jeopardized several megawatts of solar PV projects that were awaiting financing and threatened to derail Vermont's precedent-setting program.

DPS is a part of the executive branch of Vermont's government that is led by Republican Governor Jim Douglas. Though Governor Douglas opposed Vermont's feed-in tariff program, he let the policy become law without his signature.

The state agency argued that a recent FERC decision ruling that a California program had violated Federal law "could potentially affect" Vermont's program as well, and that the Vermont "Standard Offer Program" should be suspended.

The Public Service Board, Vermont's highest regulatory authority, ruled that it will not seek clarification from the Federal Energy Regulatory Commission, effectively ending the debate for the Green Mountain state.

In North America, the term "standard offer" is used interchangeably with the more commonly used expression "feed-in tariffs". To further confuse matters, Vermont's feed-in tariffs are part of the state's Sustainably Priced Energy Development Program, dubbed SPEED.

Defence of Vermont's SPEED program was led by Renewable Energy Vermont. The advocacy group successfully argued that the PSB has no authority to rule whether the program violates Federal law. REV further argued that FERC's California decision had little "legal significance" beyond that specific case.

Vermont's SPEED program is the most sophisticated in the US. Tariffs are differentiated by technology and, for wind energy, also by size.

While the PSB's decision will not end the debate about Federal pre-emption of feed-in tariffs in the US, it sends a signal to other states that they can set feed-in tariff policy that avoids overt conflicts with the Federal government.

For additional information:

Determination of the Vermont Public Service Board

Wind fastest growing renewable energy sector in US state of Alaska

13/10/2010

Wind is the fastest growing sector in the US state of Alaska's renewable energy market, according to the Renewable Energy Alaska Project.

In all, 20 Alaskan communities are now using wind power; several more have wind projects underway.

Particularly noteworthy are the communities of TokSook and Kasigluk, which now generate 20 percent of their electricity from wind.

The City of Kodiak now generates 9 percent of its electricity from wind, with the three wind turbines installed by the Kodiak Electric Association in July 2009 cutting diesel fuel use in the community by more than 900,000 gallons, REAP said.

That result in a monetary savings for the utility of $2.3 million.

On a related note, the Raibeit Golden Valley Electric Association is moving forward with plans to build a 24-MW wind farm at Eva Creek, near Healy, Alaska. In the meantime, in Anchorage, developer CIRI is pursing a 53-MW wind farm that could power up to 17,000 homes.

For additional information:

Renewable Energy Alaska Project

AGC and Tenesol create joint venture for custom-made photovoltaic glass modules

12/10/2010

AGC Glass Europe, a leading glass manufacturer, and Tenesol, a global solar power provider, have created a joint venture for the production of BIPV crystalline SI modules that answer customer-specific requirements.

The customized laminated-glass modules will be manufactured at AGC Vertal Sud-Est, in the Lyon region of France, beginning in 2011.

“AGC is dedicated to manufacturing glass products that help people to live more comfortably while reducing or generating energy, [and] BIPV had to enter our product range,” said Jean-Luc Batkin, vice-president, Solar and Processed Glass of AGC Glass Europe.

As a result, “it was essential to find a partner with the right expertise in PV modules and with the same commitment to product quality, customer satisfaction and environmental care,” he said. “Tenesol, one of the most well-known global solar power providers, is the perfect match for us.”

The BIPV laminated glass modules offered by the joint venture will be some of the most advanced crystalline BIPV panels on the market, the company’s said in a joint statement.

Integrated into façades, glass-roofs and sunshades, they will be perfectly suited to the latest European building regulations, which intend to stimulate thermal efficiency and energy production in buildings.

“We are delighted to embark on this joint venture with AGC, which combines our expertise in custom-built PV solutions with one of the world’s leading glass producers,” said Benoit Rolland, Managing Director of Tenesol. “To remain competitive in the crowded solar market, we continually improve our products and services through innovation and development. Joining with AGC increases our product offering and shows our commitment to delivering flexible PV solutions that answer specific client needs.”

For additional information:

AGC Glass Europe

Tenesol

IREC release annual report on trends in renewable energy

12/10/2010

The Interstate Renewable Energy Council in the US has released its annual updates and trends report, considered by many in the states as a leading source of insight into emerging trends in renewable energy.

The report, which is funded by the US Dept. of Energy, covers regulatory issues, policies and incentives, installation and market data, and clean energy workforce development and training.

“Pulling all of these issues together, IREC stays focused on developing strong, fair, safe and sustainable market and policy conditions that will move renewable energy into the mainstream,” said Jane Weissman, the IREC’s executive director. “However, we also stand committed to the identification of new issues, and to overcoming the challenges that arise.”

Among the highlights of the report is a chapter on emerging strategies for making renewable energy more accessible and affordable to more people.

“Some of the exiting emerging opportunities are community solar and net metering meter aggregation, third-party ownership, the integration of advanced energy storage, and the smart grid,” Weissman said.

The report’s authors found that even against the backdrop of a weak global economy, solar markets continued to grow in the US, with the number of US grid-connected PV installations growing by 40% compared to 2008.

That said the authors believe that solar policy development faced several challenges over the past year. According to the staff of the Database of State Incentives for Renewable Energy at the North Carolina Solar Center at NC State University in the US, renewable portfolio standards, direct cash incentive programs, and net metering and interconnection rules continue to move forward with improvements.

However, feed-in tariff polices slowed in 2009, and property-assed clean energy financing basically came to a standstill, they said.

On the workforce development and training front, Weissman said, “This is an exciting time of heightened awareness of the importance of clean technologies to our economy and environment.”

“A competent workforce is critical to the continued growth of renewable energy,” she continued. “It is essential that the development of this workforce includes industry-accepted competency standards and job availability.”

For additional information:

IREC 2010 Annual Update & Trends Report

Masdar PV signs supply contract with system integrator biomo solar

12/10/2010

Masdar PV, a manufacturer of large-scale silicon-based thin-film solar modules, has signed a supply contract for 1 MWp with the system integrator biomo solar.

The thin-film solar modules produced by Masdar PV will be used for a number of roof installations which biomo solar plans to complete in Germany before the end of the year.

"We are delighted to have acquired such a renowned manufacturer of thin-film solar modules as Masdar PV to act as our technological partner for our construction project in Germany," said biomo solar Managing Director Heinz-Dieter Steinmann. "Alongside the technological advantages Masdar PV is able to provide, we were equally impressed by the focus on service the company is able to offer."

The project involves Masdar PV's high-grade 1.4m² modules. These high-tech solar modules can be supplied in sizes up to 5.7 m² and offer an excellent cost-performance ratio, especially under the diffuse light conditions which often prevail in Germany with its overcast weather conditions, according to a written statement from the company.

"biomo solar has established itself as a leading player in the project planning of solar and biomass plants," said Frank Wouters, Masdar Pv's managing director. "We believe that Germany remains a lucrative market for thin-film solar modules, particularly with regard to roof installations which generate electricity to be used within the building itself.

"For this reason, we are extremely pleased that our modules will be used for further projects within our home market where they will be able to display their strengths," Wouters said.

For additional information:

Masdar PV

biomo solar

Government of Canada invests in clean energy in Manitoba

11/10/2010

Steven Fletcher, Canada's Minister of State, has announced his government's support for a project to demonstrate the potential benefits of using pyrolysis oil, a bio-oil replacement for heavy oil that is often used in agriculture and industry.

Last week, Minister Fletcher was joined by the Rosann Wowchuk, Minister responsible for Manitoba Hydro, and Bob Brennan, President and CEO of Manitoba Hydro, to highlight the first of five projects under Manitoba Hydro's Power Smart Bioenergy Optimization Program.

"With this important investment, our Government is once again helping to position Canada at the forefront of clean energy technology," said Minister Fletcher. "This innovative bioenergy project will create high-quality jobs for Manitobans and help reduce greenhouse gas emissions."

"This exciting collaboration to develop bioenergy in Manitoba complements our many renewable energy initiatives on biofuels for vehicles, hydro and wind power and geothermal, and has the potential to aid in our climate change goals, green economy and energy independence," said Minister Wowchuk. The project, which is receiving up to $2.42 million through the Clean Energy Fund, will demonstrate and evaluate the use of pyrolysis oil to replace fossil fuel as a source of heat and power in industrial applications. The testing of pyrolysis oil will provide agricultural and industrial customers with future access to alternative fuels and an increased understanding of how to make the most of renewable energy resources in the region.

As part of Canada's Economic Action Plan, the Clean Energy Fund is investing $795 million over five years in clean energy technology development and demonstration. The Government of Canada is supporting nearly 20 projects under the renewable and clean energy portion of the Clean Energy Fund, totalling up to $146 million. Three carbon capture and storage projects have also been announced, totalling $466 million from the fund.

For additional information:

Natural Resources of Canada

Manitoba Hydro

Latest news

Aspen Aerogels raises $21.5M in venture financing

11/10/2010

Aspen Aerogels Inc., a manufacturer of nanoporous insulation products in Northborough, Massachusetts (US), has raised $21.5 million in a round of investment, led by Aspen BASF Venture Capital GmbH.

Other investors included RockPort Capital, Tenaya Capital, Reservoir Capital Group, Arcapita Ventures and Argonaut Private Equity. Don Young, CEO of the Aspen Aerogels, said the strong

technical, commercial and financial support will help the company, “target and rapidly penetrate the European market.”

Founded in 2001, Aspen Aerogels manufactures reinforced insulation products that are up to five times more effective than other insulation materials.

Aerogels are silica foams with nanoporous cavities that comprise 97% of their volume; thus earning them the name “solid air.” Aerogels have been known as extremely fragile and brittle materials. Aspen has succeeded in producing aerogels in the form of thin, flexible mats at acceptable cost. These blankets are more robust than the existing monoliths and spheres, and just as easy to process as any other flexible insulation material.

“High-performance insulation materials are the key technology for energy-efficient retrofitting of buildings,” said Bruce Christensen, vice president Global Technology and Innovation Management at BASF Construction Chemicals. “These new materials are space-saving and give home owners more options in designing their house to suit their own tastes. Aspen technology can contribute in a major way to energy-efficient homes that also look good.”

The company’s solutions enable customers to conserve energy in a variety of industries including building and construction, chemicals, transportation and oil and gas.

“Aspen has done an excellent job in advancing aerogel technology for industrial applications,” said Dr. Oliver Guthmann, investment manager at BASF Venture Capital. “We see an additional very large market potential and further opportunities for profitable growth in the construction industry.”

For additional information:

Aspen Aerogels

Latest news

Upcoming Eco Expo Asia seen as gateway to markets hungry for eco, energy innovation

11/10/2010

The latest innovations in renewable energy, energy efficiency, natural resource protection and eco-friendly products will share center stage at the Eco Expo Asia, 3-6 November, in Hong Kong.

The event, now in its second year, is organized by the Hong Kong Trade Development Council and Messe Frankfurt (HK) Ltd., and is quickly becoming Asia’s leading environmental protection fair.

In 2009, the inaugural expo played host to over 200 exhibitors and was attended by visitors from over 100 countries.

“Eco Expo Asia brings together eco-industry specialists from around the world to offer the business sector's solutions to climate change,” said Edward Yau, Secretary for the Environment of the Government of Hong Kong Special Administrative Region. “It provides an excellent platform for service and product suppliers of eco- industries to exchange market information and develop new growth areas.”

This year’s Expo coincides with theC40 Hong Kong Workshop, the title of which is Low Carbon Cities for High Quality Living.

The C40 is a group representing major cities around the world that have made a commitment to tackle global warning and climate change. The group is convening in Hong Kong to discuss the challenges and opportunities of crating modern, low carbon, high quality livable metropolitan centres.

The programme is organized around two themes: buildings, with a special focus on retrofitting existing buildings and new-build best practices, and transport, which a special focus on electric vehicles.

Together the two events will bring together representatives of business and industry, government officials and environmental experts from over 40 cities to share their insights on climate change solutions.

Besides serving as an international trading platform and product showcase, the proximity of Hong Kong to mainland China and the rest of Asia, makes the gathering an ideal gateway to the region, among the world’s fastest growing eco markets.

The Chinese government has committed to cutting its carbon intensity by 40% to 45% by 2020, from 2005 Carbon levels. To accomplish the goal, the government has incorporated carbon reduction into its twelfth five-year plan and will invest $30 billion into the effort annually.

At the same time, development of a low carbon economy and renewable energy will be the focus of an additional $147 billion in spending annually through 2050.

Presently, the Hong Kong government is working closely with the Guangdong provincial government on the Chinese mainland to transform the Pearl River Delta region into a “Quality Green Living Area”.

With a population more than 48 million, the region is forecast to be a $12 billion market for environmental technology, goods and services by 2018.

For additional information:

Eco Expo Asia

Latest news

Regional forum set on ECOWAS Solar Energy Initiative

11/10/2010

A regional forum on the ECOWAS Solar Energy Initiative (ESEI), and the wide range of opportunities and challenges expected to grow from it, will be held at the Hotel Meridian President in Dakar (Senegal) 18-21 October.

According to the event's organizers, the forum will officially launch the ECOWAS Solar Energy Initiative, inaugurate the ECOWAS Solar Commission, and adopt a road map for large-scale deployment of solar energy in West Africa.

Those wishing to attend are being urged to register by Tuesday, 12 October.

The Economic Community of West African States (ECOWAS) is a regional group of 16 West African countries founded in May 1975. Its mission is to promote economic integration.

Earlier this year the group endorsed a proposal by President Abdoulaya Wade of Senegal to harness the region's solar energy potential. Under the plan outlined by Wade, the member nations will collaborate on the construction of power plants they believe in time will provide an inexpensive, compliment to the fossil fuels that currently power the region.

Wade made his pitch for a solar future in July, during a summit of regional leaders held in Sal, Cape Verde. During his presentation, he cited the region's abundance of sunshine and possession of the largest desert in the world as the rationale for moving West Africa in the direction of energy self-sufficiency.

Next week's forum will look at solar heating for industrial processes, solar energy for industrial applications and solar cooling as a feasible option, where applicable.

Other topics on the agenda include solar energy applications in various sectors and services in urban and rural areas, obstacles and barriers for the solar deployment (including financial, economic, legal, institutional, knowledge and capacity gaps), and possibilities for technology and knowledge transfer.

For additional information:

Regional Centre for Renewable Energy and Energy Efficiency

Latest news

Solairedirect closes €80 million in project financing

10/10/2010

Solairedirect, France's second largest solar power producer, has closed an €80 million project financing, bringing total raised by the company – in the form of either straight

financing, debt or equity – to €280 million, an amount the company says is unrivaled in the nation's solar sector.

The money will be used to build three solar parks in southeastern France (Esparron 1 and 2, Saint-Hilaire du Rosier) with a total capacity of 20 MW. Among those contributing funds to the projects are Natixis Lease, Oseo, Unifergie (Crédit Agricole group) and 123 Venture.

With the successful conclusion of this financing round, Solairedirect has been able to set a European record in solar levelized cost of electricity at 15.4 euro cents per kWh, a development the company believes positions it at the forefront of the race toward making solar power as competitive as other sources of energy.

In the meantime the company's Solaire Durance division has entered into a jointed venture with Caisse des Dépôts, France's largest state-owned financial institution, to build the nation's largest solar park to date at Les Mées (in the Provence Côte d'Azur region). Once operational, the park will have a total capacity of 24 MW.

In a written statement, Solairedirect said it intends for the Les Mées solar park to be a global showcase for utility scale solar power through its implementation of systematic innovations in photovoltaic modules design and production, electrical systems design, and unique construction methods.

In addition to the company says it has employed innovative legal and financial approaches to reduce risks and hence, capital costs.

As if that weren't enough to make it an enterprise on the move, Solairedirect also announced the launching of solar IPP businesses in South Africa, India and Morocco.

For additional information:

Solairedirect

Latest news

YAHOO! Yahoo building green data centre in Switzerland

8/10/2010

Search giant Yahoo has begun construction on its next green data centre in Avenches (Switzerland), according to a report by Data Center Knowledge.

Scheduled for opening in 2012, the facility will rely on fresh air for cooling, rather than using energy-intensive chillers.

Inspired by the heat management principles found in chicken coops, this design was first implemented in Yahoo's recently opened data centre in Lockport, New York in the US.

However, the Swiss project differs from the Lockport data centre in that Yahoo is taking an existing facility and converting it for data centre use instead of using factory-built modules, as was the case in Lockport.

"We're proud of this design because it's a retrofit of an older structure [built in the '60s] that will allow operation of YCC technology," said Scott Noteboom, director of data centre operations for Yahoo. "We've figured out how to make it work in other situations aside from just pre-engineered structure built from the ground up. The design approach is almost identical in efficiency and approach to what we did in Lockport."

In its first major European data centre build, Yahoo has been searching the Avenches area for potential sites since 2007.

For additional information:

Data Center Knowledge

est news

 Texas to become first US state with offshore wind energy

8/10/2010

The first offshore wind energy turbine in the US will be installed off the Texas coast by the end of the year.

The 2.75-MW turbine is being installed near Galveston Island in the Gulf of Mexico. It is a precursor to the 300-MW Galveston Wind Project and the development of 3500 acres (1,416.4 hectares) already leased for Texas offshore wind operations.

According to the US Department of Energy's National Renewable Energy Laboratory (NREL), the US has the potential to generate over 4,150 GW of energy from offshore wind, which would fulfill four times the current energy demand through wind energy.

"Texas has many favorable conditions, such as its own transmission network and plant sites in a 10 mile zone off of its coast," said Jan Wiedemann, managing director of the German American Chamber of Commerce in Houston (Texas). "This area is governed by Texas state laws, making it unlike any other US state since it does not need the approval of the US Department of the Interior.

"This creates many opportunities for entering the ever growing wind industry The NREL also projects that Texas has the potential to generate 1.06 GW of energy within this 10 mile zone (25.9 square kilometer)," he added.

Not coincidentally, Houston is about to host the first-ever Texas Offshore Wind Energy Roundtable. The conference, and an affiliated forum on offshore wind law will be held 19-22 October. The four-day conference will evaluate the potential of Texas's offshore wind energy

market and address the expected wind energy boom in the Gulf of Mexico. E.ON Climate & Renewables Europe, SIEMENS, Hochtief, Vestas, Thales and Siag, have all confirmed their participation.

Featured speakers will include Michael Lewis, managing director of E.ON Climate and Renewables Europe, who will speak about their experiences as a European offshore wind energy supplier, and William Keating, general manager sales North America of Vestas Offshore, who will speak on state-of-the-art technological capabilities and experiences in offshore wind from the perspective of a turbine manufacturer.

For additional information:

Texas Offshore Wind Energy Roundtable

Latest news


Tessera Solar project in US first to get both state and federal approval

8/10/2010

Tessera Solar's Imperial Valley Solar project in California has become the first utility-scale solar power project to be approved by both state and federal regulators in the US.

The US Bureau of Land Management signed off on the project October 5. The project secured the approval of the California Energy Commission last week. Tessera Solar is a division of NTR plc. of Dublin (Ireland).

The 709-MW Imperial Valley Solar Project is located on 6,571 acres located outside of El Centro (California, US). Phase 1 of the project will generate 300 MW of power under a 20-year Power Purchase Agreement (PPA) with San Diego Gas & Electric.

Upon completion of the Sunrise Powerlink, Phase 2 of the project will generate an additional 409 MW. "Tessera Solar has achieved a significant milestone securing this joint approval for the Imperial Valley Solar Project in one of the more complex permitting environments in North America," said Jim Barry, Chief Executive, NTR plc. "A fully permitted project with a utility power purchase agreement of this size creates significant value for Tessera Solar."

The Imperial Valley Solar Project site was selected a number of years ago for its combination of high intensity sun and access to transmission lines. Since then the company has invested significant funds in preliminary engineering, environmental surveys and site preparation to be in a position to deliver grid-scale solar energy.

The project is expected to create 300-700 construction jobs and 160 permanent jobs once the facility.

For additional information:

Tessera Solar