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Business Sustainability News

Solar power's next shining

Krister Aanesen, Stefan Heck, and Dickon Pinner

Has the solar-power industry lapsed into a classic cycle of boom and bust after a decade of unprecedented growth? It might appear so. As years of government subsidies boosted the global installed capacity of solar-photovoltaic (PV) modules and dramatically cut prices, new producers, including China, rushed into the market, prompting oversupply and pressure on margins that threaten many pioneering players. Demand today isn't keeping up with supply, and governments continue to scale back support as they cope with the aftermath of the economic crisis.

Despite the challenges, new McKinsey research indicates that the industry is suffering from growing pains rather than undergoing death throes. Solar is entering a period of maturation that, in just a few years, will probably lead to more stable and expansive growth for companies that can manage costs and innovate to tap rising demand from multiple customer segments. "Solar power: Darkest before dawn" finds that underlying PV costs are likely to continue to drop as manufacturing capacity doubles over the next three to five years. Indeed, the cost of a typical commercial system could fall 40 percent by 2015 and an additional 30 percent by 2020, permitting companies to capture attractive margins while vigorously installing new capacity.

[<Full article \(PDF–2.0 MB\)>](#)

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How India is creating the next big solar market

By [Anjali Jaiswal](#)

www.greenbiz.com



With nations around the world vying for clean energy leadership, India has taken a bold step toward becoming a leader in solar development. In only two years under India's ambitious national solar policies, prices for solar energy in India have dropped dramatically, approaching the price of traditional energy from fossil fuels. While the Indian government has a long way to go to reach its goals of 20 gigawatts of solar energy by 2022, India's experience is a strong example of how national and state policies can unleash the potential of clean energy.

Just last week, [NRDC](#) and our partner, the New Delhi-based Council on Energy, Environment and Water ([CEEW](#)), released a new report showing how -- in just two years -- India's National Solar Mission has transformed the solar market in India. The

report, *Laying the Foundation for a Bright Future*, is the first independent, external analysis that's been done on the strengths and hurdles faced by India's solar efforts.

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California Governor Issues Sweeping Order to Green Government

SustainableBusiness.com News

California Governor Jerry Brown issued a sweeping executive order that will make the state's government a model for green building.

50% of new state buildings beginning design in 2020 must be Zero Net Energy, and all new state buildings and major renovations that begin design after 2025 must be Zero Net Energy.

State agencies shall also take measures toward achieving Zero Net Energy for 50% of the square footage of existing state-owned building area by 2025.

- Any proposed new state building or major renovation larger than 10,000 square feet has to generate its power onsite using solar or wind, if economically feasible.

- New state buildings and major renovations larger than 10,000 square feet have to obtain LEED Silver certification or higher.

All state facilities have to cut power bought from the grid 20% (below a 2003 baseline) by 2018.

State agencies also have to participate in demand response utility programs and include electric vehicle charging stations in new and existing buildings.

All state agencies must reduce greenhouse gas emissions at least 10% by 2015 and 20% by 2020, compared to a 2010 baseline.

They must also reduce water consumption 10% by 2015 and 20% by 2020, as measured against a 2010 baseline.

Finally, State agencies have to buy environmentally preferable products when they are cost effective.

In issuing the order, Brown said these changes will save money and boost California's economy by investing in green technology companies and green jobs.

He noted that the California Global Warming Solutions Act of 2006 requires greenhouse gas emissions be reduced to 1990 levels by 2020, and the energy used in buildings is the second largest contribution to state emissions.

[<The Executive Order>](#)

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Tips:

There is always scope to conserve electricity/ energy by using the appliances etc. Judiciously and intelligently. The best part is conserving electricity/ energy benefits in multiple ways it not only saves energy but reduces the expenditure and also contributes in reduction of carbon emitted.

- Use appliances to its optimum capacity: neither overload nor with very low load. For example A washing machine of 5.5 kg load should not be used with 7kg load nor with 1 kg. load.
- Set timings in washing machine as per requirement only, do not set wash time or spinner unnecessarily on higher side.
- While using pressure cookers please bear in mind that using bigger pressure cooker for small amount of food will result in wastage of energy.
- Electric iron with thermostat should not be plugged in and left as we know that it will not overheat because it may unnecessarily consume electricity and result in wastage.
- Similarly while cooking people leave the burner on sim and get busy with some other work and the gas is unnecessarily wasted. One should set flame of burners on high or sim only as per requirement.

Keeping up the momentum: Companies build on Earth Day

By John Davies



It's easy to think that Earth Day ends with a couple of booths in the office lobby and a chance to volunteer for a day. But the annual celebration allows companies to build on their efforts year after year and, in some instances, this is creating a tremendous scaling of efforts.

Long after the annual beach clean ups, the fundraisers and the political proclamations, many corporations are continuing to embark on innovative environmental programs and events. It's this kind of follow through that's important for Earth Day to remain relevant and to grow.

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MBAs compete for 5,000 pounds sustainable business prize

I've never been a dragon before, never mind a "green" dragon, so as I took my seat at the top table with the other judges of the M&S Sustainable Retailing Challenge, I wondered which of the terrifying females on the popular BBC TV programme I had been chosen to represent.

At a time when business schools are churning out thousands of MBA graduates, there appears to be a mismatch between what companies want and what the educators are providing. The courses themselves are increasingly under fire because they are perceived as focusing more on profit than issues such as sustainability and corporate and social responsibility (CSR).

This Dragons' Den-style competition was the first major collaboration of its kind between Marks & Spencer and Cranfield University School of Management, to test whether today's postgraduate students could be those with the best ideas for sustainable services and products for tomorrow's businesses.

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China Makes Green Building Centerpiece of Efficiency Plan

SustainableBusiness.com News

China is moving to make green building a centerpiece of its energy plan.

30% of new construction in China will be energy efficient by 2020, says a document released by the Ministry of Finance and the Ministry of Housing and Urban-Rural China



wants its building sector energy consumption ratio to be closer to that of developed countries and plans to provide incentives for green buildings, raise industry standards and foster development of related industries.

Vice Premier Li Keqiang says 75% of the country's buildings are not efficient and are in need of renovation and there are plans to invest about \$800 billion in energy saving and environmental protection projects, noting that urbanization is the most pressing environmental need in China. He visited Europe recently asking for greater relaxation of policies on exporting high-end technology.

The country's goal is to reduce the economy's carbon intensity by 40-45% in 2020 compared with 2005. Last week, the World Bank asked China to urgently reduce greenhouse gas emissions from its rapidly expanding cities through energy efficient buildings and industries, transport systems and water and waste management.

Making green buildings a centerpiece for efficiency efforts will create incentives for green building materials and clean energy, driving those industries forward. Buildings are responsible for half of China's steel consumption and 60% of cement consumption - and is on track to account for a third of total energy consumption by 2020, according to the Ministry of Finance.

An example of green construction are nine residential towers planned for Suizhong, China, which combine courtyard apartments, row houses, retail zones and high rise towers. Courtyards and connected green roofs will weave through complex like a maze promoting community interaction and walkability and the complex is oriented to receive maximum daylight and views.

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Whole Foods stops selling unsustainable seafood

By David Newman



Whole Foods recently became the first major North American retailer to stop selling unsustainable, or red-listed, seafood. The red listing, as determined by the Monterey Bay Aquarium and the Blue Ocean Institute, indicates that the fish species is being overfished or that current fishing methods harm non-target marine life or habitats. Fish that'll no longer be available: gray sole, skate, Atlantic cod (trawl-caught), Atlantic halibut, octopus, sturgeon, tautog, turbot, imported wild shrimp, and several species of tuna. Fortunately, a wide range of similar, but sustainable, alternatives will continue to be.

A growing demand for seafood, combined with lax or non-existent fishery management in many parts of the world, continues to drive fish populations and ocean ecosystems toward the brink of ecological ruin. Half of all marine fish species are fully exploited and another one-third are declining or collapsed, according to the FAO. It takes more and more effort by larger numbers of fishermen to catch the same amount of fish as populations decline year after year.

While stronger laws and regulations have begun to reverse this trend in some countries like the United States (see my earlier blog on the success of U.S. fisheries policies), this is only part of a global solution to the fisheries crisis. In places lacking the governance capacity, changing market demand may provide the greatest leverage for on-the-water improvements and meaningful fisheries conservation.

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WWF leading corporate giants to epic carbon cuts

www.greenbiz.com

Around 30 of the world's largest companies have saved more than double the annual carbon dioxide (CO₂) output of Switzerland through the WWF's corporate carbon cutting scheme since it began in 1999.

A review of the campaign group's Climate Savers program, whose members include Coca-Cola, HP, Sony and IBM, found more than 100 million tonnes of CO₂ had been avoided in the period up to 2011. The program also numbers Nike among its ranks, although the sportswear retailer had to admit last week its emissions rose substantially last year following a boost in sales.

But through extrapolating companies' commitments under the WWF scheme out to 2020, analyst firm Ecofys estimates overall emissions savings from direct operations, indirect sources and the supply chain since 1999 could exceed 350 million tonnes.

It adds that the potential for carbon cuts could go even further, claiming that if other major corporations followed the same path in the 16 business sectors where the program is currently active, between 500 and 1,000 million tonnes of emissions could be avoided annually in 2020.

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Whatever happened to carbon capture in the fight against climate change?

In the cool, salty air of the Norwegian coast, a revolution in reverse is being attempted. Here, amid a mare's nest of gleaming steel pipes and flaming yellow gas flares, engineers are aiming to put back under the ground what many nations have exerted all their might for the last century to get out: carbon.

If all goes to plan, the oil refinery and gas power plant at Mongstad will have millions of tonnes of its climate-warming carbon dioxide funnelled back under the North Sea. And there are plans aplenty around the world for carbon capture and storage (CCS). They carry racy names such as Goldeneye and Gorgon, promise to even suck greenhouse gases out of the air one day, and are laced with the delicious irony of having been kick started by climate sceptic US president George W Bush, who wanted to "do something for coal".

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Ferrari to launch its first hybrid car; a snip at 527,000

MAY 17TH, 2012 | IN THE NEWS

This article titled "Ferrari to launch its first hybrid car – a snip at £527,000+" was written by Dan Milmo, industrial editor, for guardian.co.uk on Tuesday 15th May 2012 11.16 UTC

From horsepower to battery power, Ferrari is joining the growing ranks of green carmakers by launching its first ever hybrid vehicle at the end of the year.

The Italian firm, one of the most elite names in motoring, indicated that one of its glitziest products, the Enzo, will be released in a hybrid version.

"At the end of the year, we'll also be unveiling the new Enzo, a limited series model and our first ever hybrid car," said Ferrari's chairman, Luca di Montezemolo.

According to reports on Monday, the price will probably exceed the €660,000 (£527,000) cost of the Enzo and will be the carmaker's most powerful model – combining two electric motors with a 12-cylinder gas engine, allowing for a 40% cut in fuel use.

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European Renewable Energy Super Grid Comes Into Focus

SustainableBusiness.com News

It seems that pan-continent grids are in our future, with the mammoth Desertec project moving ahead in North Africa, and now talks about laying a cable between Iceland and the UK to carry excess geothermal energy to Europe.

There's enthusiasm for an eventual pan-Europe supergrid across the continent, which would feed in geothermal from Iceland, wind and wave energy from Northern Europe, solar from the south and from Desertec in North Africa.

France and the Netherlands already have connectors and another will be completed this year to carry wind energy from Ireland to the UK. There are plans for nine more within Europe, with Norway at the center of many of them, where renewable energy would flow both ways.

Last month, 20 companies signed onto the "Norstec" partnership, to turn the North Sea into an offshore wind hub and link countries together in a super grid.

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Fresh water demand driving sea-level rise faster than glacier melt

Trillions of tonnes of water have been pumped up from deep underground reservoirs in every part of the world, says report



For three decades, Saudi Arabia has been drilling for water from underground aquifers. Engineers and farmers have tapped hidden reserves of water to grow grains, fruit and vegetables in the desert of Wadi As-Sirhan Basin. Photograph: Landsat/Nasa

Humanity's unquenchable thirst for fresh water is driving up sea levels even faster than melting glaciers, according to new research. The massive impact of the global population's growing need for water on rising sea levels is revealed in a comprehensive assessment of all the ways in which people use water.

Trillions of tonnes of water have been pumped up from deep underground reservoirs in every part of the world and then channelled into fields and pipes to keep communities fed and watered. The water then flows into the oceans, but far more quickly than the ancient aquifers are replenished by rains. The global tide would be rising even more quickly but for the fact that man-made reservoirs have, until now, held back the flow by storing huge amounts of water on land.

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UK's only carbon-neutral chocolate arrives by sailing ship

This article titled "UK's only carbon-neutral chocolate arrives by sailing ship" was written by John Vidal, for guardian.co.uk on Friday 11th May 2012 11.29 UTC



The 32-metre brigantine Tres Hombres maintains a sustainable freight service between Europe, the Atlantic islands, the Caribbean and America. Photograph: Menno Valkenburg/Tres Hombres

the chocolate is said to be minimal, but the retail price for the food billed to taste of fruit, tobacco and grass is eye-watering. A 100g bar of Gru Grococo will sell at an introductory price of £12.95, but if bought while still at sea will cost £60 for six bars – the equivalent of around £1.50 a mouthful.

Which ticks more ethical boxes? Fairtrade organic olive oil from the Palestinian territories? Or organic chocolate grown by a co-operative of Grenadian peasant farmers on a solar-powered farm and transported to Europe from the Caribbean in a sailing ship with no engines?

The olive oil sells for £8.50 for a 500ml bottle, but the first 24,000 bars of "handpressed, single-estate, vanilla-free, vintage rootstock, grown-with-a-windward aspect" chocolate in the world arrives in Portsmouth next week – winds permitting – on the Tres Hombres, a 32-tonne square-rigged wooden sailing cargo ship.

The environmental impact of growing, processing and transporting

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New Geothermal Technology Uses CO₂, Not Water

SustainableBusiness.com News

A new geothermal company has a technology that makes carbon capture more cost-effective because it produces revenue-generating electricity from the sequestered carbon.



Heat Mining Company LLC is commercializing technology invented at the University of Minnesota, "CO₂ plume geothermal." Rather than using water to extract heat from deep underground to produce geothermal energy, it uses carbon dioxide emitted and sequestered from fossil fuel plants.

That opens many more locations to geothermal, including being used as a back-up for wind or solar projects. "This technology has the potential to introduce a new era of electrical power production from renewable wind, solar, and geothermal energy as well as from traditional fossil fuels, while significantly reducing emissions of carbon dioxide to the atmosphere, says Martin Saar, co-inventor and earth sciences professor in the university's College of Science and Engineering.

The University of Minnesota submitted the technology for patents in March 2009 and licensed it exclusively, worldwide to Heat Mining Company LLC through the Office for Technology Commercialization.

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ConAgra Foods' green strategy: Award employees for sustainability efforts

By **Padma Nagappan**

Last year, ConAgra Foods -- the U.S. packaged-foods company behind such well-known brands as Hunt's Ketchup and Reddi-Wip -- saved millions of dollars while dramatically cutting its energy consumption. It accomplished this by not relying on major process changes or heavy investments hailing from top executives. Instead, it turned to its employees.

The accomplishments stemmed from an awards program, launched in 1992, developed to encourage employees to proactively look for ways to eliminate waste and reduce water and energy consumption. By allowing different divisions to set their own sustainability goals and awarding employees that met those goals, the Nebraska food giant saved 300 million gallons of water, eliminated 61,000 tons of landfill waste and reduced its carbon emissions by more than 43,000 metric tons. These efforts also saved the company \$28 million.



Gail Tavill, ConAgra's vice president of sustainable development, spoke with GreenBiz about how the program works, lessons learned and challenges the program has faced.

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Small island states in clean energy race

This article titled "Small island states in clean energy race" was written by John Vidal, environment editor, for guardian.co.uk on Thursday 10th May 2012 15.55 UTC. They seldom meet on the cricket or football fields, but the world's small island developing states are informally competing with each other to be the first to ditch fossil fuels and embrace clean energy.



Sunlight warms the town of Roseau. The Caribbean island of Dominica plans to become carbon 'negative' by 2020. Photograph: Brian Janssen/Alamy

A new United Nations analysis of the most recent energy plans of 52 low lying poor countries – traditionally heavily dependent on imports of petrol and oil – shows the Caribbean island of Dominica leading the world with plans to become carbon “negative” by 2020. The Maldives is not far behind, hoping to be carbon neutral by 2020. Tuvalu and the Cook islands intend to generate all their electricity from renewables by 2020 and Timor-Leste, the poorest country in Asia, expects to provide solar electricity to all its 100,000 families by 2030.

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Energy Efficiency Now Pervasive in New Homes

SustainableBusiness.com News

The greening of the home building and renovation industry has hit its stride with over 80% of builders saying energy efficient features are now pervasive in new homes. And customers' top request is now for green homes that can reduce utility bills.

Indoor air quality is also growing in importance, with 95% of high volume home builders saying they include features that improve air quality to meet customer demand. People now view green as being higher quality in terms of durability and air quality, while also saving them money.

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News in Brief

LA becomes largest US city to ban plastic bags



This is a great day for the City of Los Angeles. The Los Angeles City Council just adopted a policy framework for banning single-use plastic bags. This makes it the largest city in the nation to adopt a policy to move toward removing these bags from our environment. As I wrote yesterday in my blog, the environmental and economic problems with these bags far outweigh any limited benefit they may have. Thus, the City Council made the right move in sending the city on its way to banning them in Los Angeles.

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Del Monte, Capsugel and Versatel join KKR Green Portfolio Program

KKR's Green Portfolio Program, a project we launched together in 2008 to identify ways to improve the financial and environmental performance of KKR's portfolio companies, turned four years old this week. And by the numbers, it's been a very busy four years.

Participating portfolio businesses have grown from our three pilot companies at the launch to 23 companies -- out of 70 KKR holdings -- around the world today, spanning a wide variety of industries and geographies. The growth and diversification are testament to the power of a framework designed to unlock financial and environmental value across diverse company operations..



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Businesses scramble to keep up with green product demand



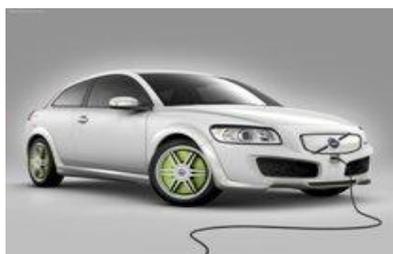
Green businesses are being urged to overhaul their design and supply operations, after a new report by consultancy Accenture revealed that many firms selling environmentally-friendly products are struggling to keep up with consumer demand.

The new survey of 250 senior executives in the U.K., U.S., Japan, Germany, France, China, Brazil and India, assesses the extent to which companies view sustainability as a driver of growth.

Eighty-three percent of respondents viewed spending on sustainability as an investment rather than a cost, although around half claimed it is currently more expensive to be a sustainable business and that consumers are not willing to pay a premium for green products.

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Powering Electric Vehicles



More than one million electric vehicles are expected to be sold in the U.S. within the next four years. To help shoulder this significant grid expenditure, RevTech is developing a virtual power plant platform and fast response energy storage capacity for EVs to deliver multiple services to ISOs, utilities, microgrids, and building managers or owners.

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Massachusetts planning food waste ban for businesses



Regulations proposed in Massachusetts by the state's Department of Environmental Protection (DEP) will ban commercial businesses, including hotels, from discarding food waste.

Greg Cooper, director of consumer programs for the DEP, expects the regulations to be implemented by the middle of 2014. "My feeling is that it is highly unlikely it will not happen," Cooper said.

The DEP is currently in the process of holding a series of stakeholder meetings in order to develop a framework of what the ban will look like. Those discussions are taking place monthly. The framework for the regulations will be done by fall, followed by some

time for public comment. The regulation will be in draft form by the beginning of 2013.

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How Starbucks could get its customers to use fewer paper cups

Starbucks generates 4 billion paper cups a year. Yikes! That's about 12 cups for every man, woman and child in America. The company has been hardworking with an array of partners to build a system that would enable these cups to be recycled.

There is a way to reduce some of that waste: Charge customers 10 cents for every paper cup they use. As it happens, the company already does just that. It just doesn't do it in an effective way. The result is Starbucks is missing a big opportunity to have a lighter environmental footprint.

Let me explain. Starbucks now offers its customers 10 cents off the price of any beverage if they bring their own mug.



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UK families waste £270 a year on discarded food



Shoppers admit to being tempted by supermarkets' cut-price offers. Photograph: Sarah Lee for the Guardian

UK families are wasting £270 a year (£5.20 a week) on discarded food and drink, according to a survey of their kitchen habits.

Most families massively underestimate the amount of food they throw away each week, according to new research.

Despite the economic downturn they admit to buying more than they need, often tempted by supermarkets' "Buy One Get One Free" and similar offers.

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Bonn climate talks end in discord and disappointment

This article titled "Bonn climate talks end in discord and disappointment" was written by Fiona Harvey, environment correspondent, for guardian.co.uk on Friday 25th May 2012 16.51 UTC

The latest round of international climate change talks finished on Friday in discord and disappointment, with some participants concerned that important progress made last year was being unpicked.

At the talks, countries were supposed to set out a workplan on negotiations that should result in a new global climate treaty, to be drafted by the end of 2015 and to come into force in 2020. But participants told the Guardian they were downbeat, disappointed and frustrated that the decision to work on a new treaty – reached after marathon late-running talks last December in Durban – was being questioned.

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*The Times of India, New Delhi
dated May 3, 2012*

*The Economic Times, Delhi
dated May 4, 2012*

Stricter AC norms to save ₹1,000cr in 2 yrs

New Delhi: Stricter energy efficiency norms for air-conditioners unveiled on Wednesday would further reduce your power bills and save up to Rs 1,000 crore by December, 2013, by way of putting lesser load on the supply network.

The upgraded norms, framed by the Bureau of Energy Efficiency (BEE), raises the efficiency quotient by 8% for split air-conditioners used in offices and commercial buildings. Home consumers too are increasingly opting for such units.

BEE also launched a mobile phone application, 'AC Power Saver', that enables consumers to calculate energy consumption and savings right on their mobile devices. "These standards would save us 200mw of additional power generation capacity or savings of about Rs 1,000 crore by December, 2013," said Ajay Mathur, director general of BEE. The cost of putting up a 1-mw coal-fired generation capacity is about Rs 5 crore.

Users of Android, BlackBerry and iPhone can get the application free of charge. These tools



KULL BULL

will help consumers calculate the expected annual electricity bills and potential savings. Users can get an idea about their savings on their electricity bills if they buy higher star-rating (higher efficiency) air-conditioners.

"Research shows that every watt of energy saved at consumption results in four watts less energy produced, factoring in the generation and transmission losses," said Deepak Takkar, senior vice-president of Emerson Climate Technologies, BEE's collaborator for developing the phone app. 7/24

Coconut-Shell Products a Big Hit in Europe

**PK KRISHNA KUMAR
KOCHI**

The coconut industry is pinning its hopes on the 'Go Green' campaign in the coming London Olympics to provide a fillip to the coconut-shell product makers at a time when the share of export of coconut products is steadily going up.

Ice cream cups made of coconut shell are a big draw in European countries like Spain and Italy, where they are valued for environment-friendly quality. The cups were a big hit even in Barcelona Olympics in the nineties. With London Olympics approaching, the industry is expecting more orders to come from Europe.

"The exporters have tied up with buyers there who import large numbers. We expect a rise in the orders with big events like Olympics," said Murali, director of Coconut Development Board (CDB). A few exporters were consistently getting orders. The Alappuzha-based Kera Palm Creations is finding it difficult to meet orders. "Our capacity is 2 lakh pieces per month. But there is a demand for 10 lakh or more. Most of these enquiries are coming from Spain, France and UK," said Ratnappan, managing director of Kera Palm Creations. Kochi-based Nexus Frozen Fruits Containers is a major exporter with a production capacity of 25,000 to 30,000 pieces per day. Its entire volume of shell cups are exported to Barcelona. There are buyers who call for customised



products as well. Rising cost of raw materials and shortage of labour are two major hurdles in meeting orders. "The shell prices have doubled from 80 paise earlier, and this has raised the cost of operation. We may not be able to increase the price of products," Ratnappan said. The shell cups sell at 7 cents a piece.

The shortage of labour is a bigger concern, according to Anil Lal, managing director of Lala Agro Tropic. "The NREGS has hired most labourers as it offers good remuneration," said Lal. The high VAT on coconut shells in Kerala is another deterrent.

The coconut products exports saw 24% rise in export value in 2010-11 at ₹37 crore. Though the figures for 2011-12 are not yet available, the CDB sources confirmed that there is a jump in exports.

*The Economic Times, Delhi
dated May 8, 2012*

Telecom Tower Firms Plan 'Green' to Cut Cost

To invite proposals for setting up independent renewable energy cos that will supply green power to run towers

GULVEENA ULAKH
NEW DELHI

Telecom tower providers are looking to reduce operational costs by inviting proposals next week for setting up independent renewable energy companies that will generate and supply green power to run towers.

Talpa, the industry association representing tower infrastructure providers across the country, is working on a request-for-proposal or RFP for the initiative that will help save the cost of diesel for running towers especially in areas where grid electricity is not available.

"The RFPs should be out by next week, followed by a pre-bid conference," said Talpa's director general Umang Das.

The industry body had proposed the creation of renewable energy service providing companies or Rescos that will set up independent plants to sell power to tower companies or telcos. This off-grid distribution model may also sell surplus power back to the grid, Das said.

Thanks to erratic power supply, about 60% of India's 400,000 telecom towers depend on diesel generators and according to sector regula-

tor Trai consume nearly 2 billion litres of the fuel every year. The regulator has directed them to reduce their dependence on diesel and cut carbon emissions by running at least 50% of all rural towers and 20% of the urban towers on hybrid power by 2015.

Tower firms have been partially successful in their experiments with producing power from solar energy, fuel cells and other renewable sources. Bharti Infratel, the tower arm of Bharti Enterprises, for instance, has been able to save 25.64 million litres of diesel after powering 12,000 tower sites with solar energy.

Viom Networks, Indus Towers and American Tower Corporation are among the players that believe reduction in costs is critical for the industry that has seen no new towers being added over the past year. The companies were hoping for new business to come from the rollouts expected from the new players that got the licences in 2008. But this did not happen because of the Supreme Court verdict cancelling the 122 mobile permits. Instead, telcos have wound up operations and are being sued for breach of contract - Reliance Infratel dragged Etsalat DB to court.

Further, the regulator has proposed changes in fee structure and wants to bring tower firms under the unified licensing regime, which will force them to pay revenue to the government. Other changes, such as the cut in FDI to 74%, have also deterred foreign investment and put a question mark over the shareholding patterns of companies such as the American Towers Corp India.

*The Economic Times, Delhi
dated May 18, 2012*

THE ECONOMIC TIMES | NEW DELHI | FRIDAY | 18 MAY 2012

You Can Reduce Your Fuel Bill, the Sensible Way

Prashant Mahesh explains how sensible driving, right tyre pressure and clean air filters can bring your expenses on fuel down by as much as 20%

Car users have seen their fuel bill rising significantly over the past couple of years. The price of petrol in Mumbai has moved up from ₹44.55 a litre in January 2010 to ₹70.68 today, a rise of 59%. Another price hike looks imminent. The government is likely to give its nod to the oil marketing companies to hike prices once again on account of higher international prices as well as depreciation of the Indian rupee. In such a scenario, one should try to reduce fuel cost by some way or the other.

According to auto experts, if you drive with a little care and maintain your car well, you can save around 10-20% on your fuel costs. "Drive sensibly, maintain your tyre pressure as specified, check the air filter at regular intervals. These simple practices could help bring down your fuel costs by as much as 10-20% over a period of time," says Rakesh Sidana, Founder, mericar.com

DRIVE SENSIBLY

The manner in which you drive your car plays the most important role in saving fuel. It is possible to drive the same distance in the same time, and yet use less fuel. "The proper way is to accelerate smoothly and slowly with a light foot and get into a higher gear as quickly as possible. If you press the accelerator very hard, more power will be needed and you will end up consuming more fuel," says Uday Prabhu of CarChutes.

Adjust gears as per your speed. Shift to the highest gear once you touch the speed of 50 km/hour. Sudden acceleration and braking tend to increase your fuel cost. Driving in a gear lower than you need wastes fuel. Similarly, if you drive in a higher gear on hills and corners, it will put extra pressure on

the engine, thereby wasting fuel. "Sudden acceleration and mileage have an inverse relation. If you accelerate too fast, you end up using more fuel," says Uday Prabhu. If you can see a signal 100 meters ahead of you, it makes no sense to accelerate and reach there, as you will burn fuel unnecessarily. Signals are another area where there is scope to save fuel. Today, many traffic signals indicate the waiting time. "If you have to wait for more than 50 seconds, it makes sense to switch off the engine, and restart it again as that saves fuel," says Rakesh Sidana. When you drive regularly on certain routes, you can anticipate the signals and slow down gradually instead of braking suddenly. Thus, if you drive sensibly you could bring down your fuel bills by as much as 10%.

INFLATE TYRES TO THE RIGHT PRESSURE

Under-inflated tyres can put more pressure on the engine, which is likely to guzzle more fuel. They also make steering and braking unstable. Hence, tyres need to be inflated to the right pressure. For example, it is recommended that the tyres of a WagonR should be inflated up to 32 psi. "Your car could consume up to 10-15% more fuel, if the tyre pressure is not adequate," says Arun Sinha, a Mumbai-based auto expert. Hence, it is advisable that you check tyre pressure at least once a month. Most petrol pumps offer you a free air check. All you have to do is to check tyre pressure whenever you go to a petrol pump to refuel your car.

CHECK AIR FILTER

A dirty air filter restricts the flow of air into the engine, which affects performance and economy. When



the engine air filter clogs with dirt and dust, it makes the car's engine work harder, thereby reducing fuel efficiency. If your car goes around in a dusty environment, air filters may have to be replaced faster. "Replacing a clogged air filter could improve your car's mileage by as much as 6-10%," says Uday Prabhu. It's a good idea to have your engine air filter checked at each oil change. Clean oil too contributes to better mileage. Oil should be changed every 5,000 kms in case of a petrol car, and 2,500 kms in case of a diesel car.

TRY TO PARK IN THE SHADE

Go for a good quality sun film as that would prevent your car from heating up fast when parked in the open. So when you start the car again, there will be less load on the air conditioner to cool, thereby saving up to 10% of your fuel cost. "A heated car will require the air conditioner to run at a higher speed to cool, which in turn will

guzzle down more fuel," says Banwari Lal Sharma, AVP (marketing), carwale.com. Of course, it goes without saying, whenever possible park your car in the shade, so that when you start it again there will be lower load on the air conditioner. Shut off/unplug all power-sucking accessories, such as phone chargers, air conditioning and the radio, before turning off your car. This lowers the engine load for the next time you start your vehicle and will use less gas.

*The Times of India, Lucknow
dated May 11, 2012*

*The Economic Times, Delhi
dated May 25, 2012*

First 2 MW solar power plant of state switched on

TIMES NEWS NETWORK

Barabanki: The state got its first megawatt-capacity solar power plant operational on Thursday. Situated in village Sandauli of Barabanki, the 2 MW project was inaugurated by chief minister Akhilesh Yadav. Speaking on the occasion, the CM said that the state government would promote the non-conventional source of energy. "The state budget will have provisions that will cater to the sector in all possible ways," said Akhilesh.

The power sector, the CM said, continues to face a crunch, despite all claims. "We still have villages which were though electrified long back, but never got power," he said. The installation of a solar power plant marks a new beginning for the state, he added.

Developed by a private company, the plant spreads over an area of around 17 acre. The cost of the plant is estimated to be around Rs 36 crore. Given the high production cost, the plant would get subsidies from the Central government.

According to sources in UP Power Corporation Limited, in most cases, the production cost at a solar plant ranges around Rs 12 per unit, while the corporation purchases power at the rate of around Rs 5 per unit. "The



GOING UNCONVENTIONAL: Chief minister Akhilesh Yadav and rural development minister Arvind Singh Gope during the inauguration of 2 MW solar power plant in Barabanki on Thursday

brighter the Sun, more the power production," said Vishnu Agarwal, chairman of the company that has set up the Barabanki based project.

The plant will supply power to the state grid under a 25 years power purchase agreement (PPA) signed with Madhyanchal distribution company of the UPPCL.

UP, as a matter of fact, is blessed with a good solar irradiation to the tune of 1,900 kilowatt-hour per sqm on an annual average basis. This is necessary for operating a solar photovoltaic power plant.

Vishnu Agarwal said that the successful commissioning and operation of the project would encourage other developers, policy-makers and power utilities to look at UP's solar resource as a possible answer to the state's energy crisis.

To note, under the State Electricity Act, 2003, the various state-level electricity regulators have specified a renewable purchase obligation. Accordingly, a set percentage of power must come from renewable sources. In case of UP it has to be 5 per cent, of which 0.5 per cent has to be from solar energy.

MNRE Sets Up Advisory Council for Solar Energy

**OUR BUREAU
NEW DELHI**

Ministry of new and renewable energy has constituted solar energy industry advisory council (SEIAC) to advise it on various technology related matters, attracting investments across the value chain, suggest steps required to encourage R&D and drive down costs and make the Indian solar industry globally competitive.

Anand Mahindra, vice-chairman and MD, Mahindra&Mahindra, has been named as the chairman of the council.

Assuring the support of industry to the national solar mission, Mahindra said, "The council would deliberate and offer advice on technology matters, manufacturing, investments and fiscal policies that are critical for the growth of the solar industry in India."

The other leading industrialists on the panel of the council are Jamshyd N. Godrej, R V Kanoria, Meher Pudumjee, Vineet Mittal and Ratul Puri. The council will also review the status of Indian solar industry from time to time and suggest measures required and a road map to accelerate the growth to achieve manufacturing level of about 4-5 GWeq per year by 2017-2020. Addressing the first meeting of SEIAC, union minister Farooq Abdullah called upon the industry leaders to invest in solar projects in India.

*The Deccan Chronicle, Hyderabad
dated May 29, 2012*

Climate change destroyed Indus Valley Civilisation

Washington, May 28: Climate change may be the main culprit behind the collapse of the Indus Valley Civilisation around 4,000 years ago, says a new study, which also claims to have resolved the long-standing debate over the source and fate of the Saraswati, a sacred river in Hindu mythology.

The study, combining the latest archaeological data along with state-of-the-art geoscience technologies, suggested that decline in monsoon rains led to weakened river dynamics, and

played a critical role both in the development and the fall of the Harappan culture, which relied on river floods to fuel their agricultural surpluses.

The international team, which published their findings in the journal *Proceedings of the National Academy of Sciences*, used satellite photos and topographic data to make and analyse digital maps of landforms constructed by the Indus and neighbouring rivers, which were then probed in the field by drilling, coring, and even

manually digging trenches.

Collected samples were used to determine the sediments' origins, whether brought in and shaped by rivers or wind, and their age, to develop a chronology of landscape changes.

The research, conducted between 2003 and 2008, also said the Saraswati river was actually not fed by glaciers in the Himalayas as believed. Rather, it was a perennial monsoon-supported watercourse and aridification reduced it to short seasonal flows, the researchers said. — PTI

‘Narmada canals can give 2,200 MW of solar power’



Shining bright: The Gujarat Chief Minister, Mr Narendra Modi, stands in front of a solar panel during the dedication and inauguration of India's first 1MW canal-top solar power plant at Chandrasan village, 45 km from Ahmedabad. — Photo: Jaydip Bhatt

MEHSANA (GUJARAT), APR 25: If even 10 per cent of the 19,000 km-long Narmada canal network in Gujarat is used for setting up canal-top solar panels, it has the potential to produce 2,200 MW of solar power, save 11,000 acres of land that would otherwise be used and prevent 2,000 crore of precious water from evaporation annually, the Chief Minister, Mr Narendra Modi, said.

Also, canal-top solar power equipment produces 15 per cent more power than the plant set up on land as the water flowing underneath keeps the solar panels relatively cool and helps generate more power, he said. He was inaugurating India's first 1 MW canal-based solar power project, commissioned on the Sanand branch canal near Chandrasan village of Kadi taluka, Mehsana district.

The State Government was compelled to take up this project through Gujarat State Electricity Corporation Ltd (GSECL), as no developer was ready to take the challenge at that time, he said.

The 1 MW plant, set up over a 750 meter-long stretch of the canal, commissioned in February, will generate 16 lakh units of clean electricity and prevent evaporation of 90 lakh litres of water from the canal annually.

The length of the Narmada Main Canal, constructed under the Sardar Sarovar Project (SSP), is 458 km. The Sardar Sarovar Narmada Nigam Ltd (SSNNL) has so far constructed about 19,000 km long canal network, out of the 75,000 km planned for the entire project.

NEW TECH

Meanwhile, SunEdison India, which developed the canal-top project for GSECL, is promoting a new, sun-tracking solar panel technology in which the panels, like sunflower, follow the sun's movement across the sky. "It costs about Rs 2 crore a MW more than the traditional technology. Our 10 MW plant in Surendranagar district has demonstrated that it produces more power," Mr Pashupathy Gopalan, Managing Director, told *Business Line*.

Interestingly, SunEdison has also installed a 15 kW solar power plant in Minwada village of Guna district in Madhya Pradesh, which is the only power provider to 75 families of the remote village. At present, SunEdison is producing 50 MW of solar power at various sites in India, including 45 MW in Gujarat alone, he added.

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Forthcoming Events

Rio+20 Conference

At the Rio+20 Conference, world leaders, along with thousands of participants from governments, the private sector, NGOs and other groups, will come together to shape how we can reduce poverty, advance social equity and ensure environmental protection on an ever more crowded planet to get to the future we want.

The United Nations Conference on Sustainable Development (UNCSD) is being organized in pursuance of General Assembly Resolution 64/236 (A/RES/64/236), and will take place in Brazil on 20-22 June 2012 to mark the 20th anniversary of the 1992 United Nations Conference on Environment and Development (UNCED), in Rio de Janeiro, and the 10th anniversary of the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg.

The Rio+20 Conference It is envisaged as a Conference at the highest possible level, including Heads of State and Government or other representatives. The Conference will result in a focused political document.

The events will commence from June 13, 2012 and will conclude on June 22, 2012. More than 500 on-site side events organized by Governments, Major Groups, Organizations from the UN system and other International Organizations will take place in RioCentro during Prepcom III (13-15 June), the Sustainable Development Dialogue Days (16-19 June) and the Summit (20-22 June).

Rio+20 is a joint endeavour of the entire UN System. A dedicated Secretariat is responsible for coordinating and facilitating inputs to the preparatory process from all UN bodies. The Rio+20 Secretariat is housed in the UN Department of Economic and Social Affairs and headed by Conference Secretary-General Sha Zukang, who is supported by two Executive Coordinators: Elizabeth Thompson (former Minister of Environment of Barbados) and Ambassador Brice Lalonde (Former Minister of Environment of France). The preparatory process is led by an 11-member Bureau composed of UN Ambassadors from all regions of the world. The host country, Brazil, is leading the logistical preparations on the ground.

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The World Green Summit

The World Green Summit (WGS) is a new annual high-level forum committed to progressing sustainable development and the green economy, by engaging business, finance, government and other leaders to find solutions for industries, cities, regions and nations. The inaugural WGS provides a media, marketing and networking platform during the official Rio+20 conference, to enable the world's leading CEOs, financiers, celebrities, and dignitaries to initiate, communicate and build solutions for a sustainable future.

The inaugural World Green Summit will be held on June 20th, 2012 at the Government of Rio de Janeiro Pavilion at the *Olympics Athlete's Park*, across the road from Riocentro, the official conference centre of Rio+20.

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Ceres Conference 2012

A weak economy, partisan politics and fragmented and unsettled environmental policies have created a wrongful perception that climate change and other sustainability threats are being ignored by the global marketplace. In reality, companies and investors, from Akron to Asia, from Billings to Brazil are innovating to use fewer resources, utilizing cutting edge low-carbon technologies and adopting paradigm-changing business models that will build the sustainable global economy. Over the course of two days (April 25-26 in Boston MA), Ceres conference attendees engaged in a dynamic and interactive program that examines some of the world's most pressing sustainability challenges, create a forum for sharing best practices and present groundbreaking solutions that will drive us toward a more sustainable economy.

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Forthcoming Events

The Solar Power and Renewable Energy Expo-2012

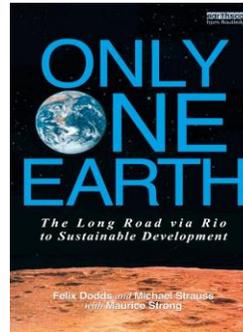
The Solar Power and Renewable Energy Expo-2012 would be held at Dandamudi Rajagopala Rao Indoor stadium here in Vijayawada from June 15 to 17. Vijayawada city is one among the 16 cities selected under Rajiv Solar Energy Mission by the central government. As part of promoting the solar energy systems and to create awareness among people about solar energy, the municipal corporation is going to organize a three-day exhibition from June 15 to 17.

The VMC has already introduced solar traffic signals at some places in the city. The authorities are planning to introduce solar street-lights in residential areas on the hill slopes in Moghulrajpuram and Gunadala as a pilot project.

As part of creating awareness among people on power-saving, the municipal authorities are going to organise the solar exhibition. Several solar energy companies would exhibit their products at the exhibition to encourage people to switch over to solar energy.

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Book Launch - "Only One Earth: The Long Road via Rio To Sustainable Development"



With Rio+20 just three weeks away, new book Only One Earth looks back over what has been achieved in the past forty years since the United Nations Conference on the Human Environment in Stockholm, and ahead to what critically needs to happen at Rio+20 and beyond.

Written by Stakeholder Forum's Executive Director, Felix Dodds, and Earthmedia's Michael Straus,

with Maurice F. Strong, Secretary-General, "Earth Summit" [1992]; UN Conference on Human Environment [1972] and Executive Director, UNEP [1972-76].

It is expected that the book will enable a broad readership to understand the achievements in the area of environment and development over the past forty years and also what has not been realized. It looks to the challenges that we face forty years from Stockholm 1972, in particular in the areas of economics and governance, and the role of stakeholders.

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Academic Programme in Sustainability

Break Through Leaders Program June 2012

University of Vermont, has announced program titled Breakthrough Leaders Program for a Sustainable Food System. The program is scheduled to take place from June 18 to June 29, 2012. In the summer of 2012, thirty emerging leaders from various countries will gather together to build their skills as innovative change makers. Through a 2 week-long program, of which one week is on campus in Burlington, Vermont and the rest online. The program aims at expanding capacity to recognize and disrupt, and create solutions for existing broken food system. Online learning will start from June 18, 2012, followed by a one week residential learning experience June 24-29, 2012. Upon successful completion of this program participants will be issued a Certificate of Completion.

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