

The EVI Newsletter

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Carbon Advisory Business

How to make your building Green?

Mounting concerns for environment protection have at last a softening effect on the rough and tough construction sector also. The infrastructure world is waking up to the concept of Green buildings now. A lot of focus is now moving on adopting such techniques and utilizing such materials that help a building achieve the 'Green Building rating'.

A green building is one that makes best possible use of natural light and air and least possible consumption of energy and water. It uses industrial byproducts, believes in recycling of waste water, harvesting of rain water, least use of air-conditioning, least production of CO₂ and tries to support environment protection every possible way.

Making a building green begins at the time of laying the first brick itself. The aim has to be kept in mind throughout the construction period. Keeping in view the fast pace of development, soon, it may become mandatory for all commercial, industrial and institutional buildings to achieve green building rating.

In order to achieve Green Building status for a building under construction, some guidelines need to be listed and followed. US based Green Building Council has been working on the issue but India needs to develop its own guide-

lines keeping its climatic conditions in view. Some of the few listed here, if followed, are sure to help a building in achieving Green Building status:

1. Effort should be made to use Fly ash Ready Mixed Concrete (RMC) produced by taking full quality control measures.

2. Instead of using bricks, autoclaved aerated concrete blocks should be used for better insulation and heat rejection in India.

3. Expanded polystyrene roof insulation should be used. Alternatively, terrace should be covered with reflective roof paints so that there is minimum load on Air-conditioning.

4. In windows, Aluminium glazing should be used with double glazing. Double glazing should be heat strengthened with 12 mm air cavity and outer glazing coated with low e-coating.

5. Only energy efficient lights like CFLs, slim tubes and CFL lumi-

naries should be used. Building design and orientation should make maximum use of natural light.

6. All air conditioning should be CFC-free.

7. Maximum recycling of wastewater should be done for landscaping purpose.

8. Rain water harvesting should be used and zero drainage to municipal storm water drainage system should be ensured.

9. Carbon Dioxide monitoring sensors should be installed in the building and regular check on them should be made.

10. Underground parking should be preferred to reduce Heat Island effect and to keep the vehicles cool so that less use of ACs is made.

11. Separate dustbins for paper and plastic should be provided in the building and area.

12. Use of solar water heaters should be made.

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First JI Project Verifier Accredited

The Kyoto Protocol's joint implementation (JI) mechanism has accredited its first third party verifier, TÜV SÜD Industrie Service GmbH, which will determine the acceptability of emission reduction projects and verify emission reductions achieved.

JI allows Annex I parties to the Kyoto Protocol to implement projects that reduce emissions, in other Annex I countries. Emission reduction units (ERUs) generated by such projects can then be used by investor Annex I parties to help meet their emissions targets. To date, 170 projects in 12 countries have been submitted for public comment, which is the first step in the selection process before projects are examined by an accredited entity under JI Track 2. These 170 projects are expected

to achieve around 300 million tons of emission reductions by the end of the first commitment period of the Kyoto Protocol in 2012.

Six projects have already been accepted by the JISC, and one project, in Ukraine, has already had its emission reductions verified. The vetting of those projects was done by independent verifiers acting provisionally as "accredited independent entities". Official accreditation of TÜV SÜD Industrie Service, which verified the emission reductions of the Ukraine project, means that the ERUs can now be issued and traded. The project makes use of coal mine methane to produce electricity, instead of venting the gas into the atmosphere, it is expected to generate 1,177,905 ERUs annually.

US: Cap & Trade seems realistic

US President Barack Obama has lifted international hopes for a new global climate treaty later this year by moving early towards an emissions cap and trade scheme in the United States. In an address to the US Congress, Obama called for lawmakers to produce a bill for the implementation of the scheme, promised during his election campaign.

Obama has said he wants a so-called cap and trade system that would put a price on emissions of climate-warming carbon. Companies that emit more than the limit would have to buy emission permits; companies that emit less could sell emission credits.

While there is no timetable set down for when it might be implemented, speculation had been growing a cap and trade bill may be pushed back to 2010 in the face of recession and a pri-

mary focus in the new administration on renewable energy measures.

Obama's budget for 2010 projects this revenue, from 2012 through 2019, will fund \$150 billion in clean energy technology investments over 10 years and a tax credit to help Americans make the transition to a less carbon-intensive economy. Obama said energy, health care and education were the three big policy areas that required "bold action and big ideas" from his administration.

The Obama budget also envisions that some revenue from the emissions permits would be returned to individuals in an idea known as Cap-and-Dividend. A bill for cap-and-dividend would soon be introduced.

Analysts said the Budget document released after the speech forecasting \$80 billion in emissions-trade revenue over in the first eight years was realistic. The budget numbers suggest a carbon price in the first year, 2012, of about \$15 a ton, one analyst said.

EVI News

Ashutosh Pandey, Practice Head - Carbon Advisory Business, Emergent Ventures (India) gave an exclusive interview to UTVI news, last month, about the "Future of Renewable Energy Projects and CER prices in this financial turmoil" at a conference organized by CII. According to him, projects may be affected in short-term due to lack of liquidity and credit crunch but are bound to be lucrative in longer run because of the ever-increasing energy demand and industrial regulations.



Aloke Bernwal, Senior Consultant, EVI also appeared on UTVI to speak about "Renewable Energy Certificates (REC) Trading". He told that REC trading is expected to start from this year end and would be first implemented in the state of Maharashtra.

Carbon Emissions in Aviation Sector

Due to rapid industry growth and an increasing contribution to global warming, the air travel and transportation industry is under significant pressure to regulate its carbon emissions. The industry has the choice of allowing regulation to resolve the issue or proactively collaborating with governments to shape future environmental regulations. Although airlines are the focal point of policies to incent the limitation and reduction of carbon emissions, all aviation industry players need to be involved in coming up with a master plan that paves the way for a sustainable environmental strategy.

Currently, the aviation sector is not uniformly covered in the Kyoto Protocol. While emissions from domestic flights are covered by countries' emissions-reduction targets, international aviation - which makes up the vast majority of flights - has not been yet addressed (e.g., 80% of total aviation emissions being related to flights over 1500km). Instead, the Kyoto Protocol places an obligation on its parties to pursue the limitation or reduction of emissions from international aviation through the International Civil Aviation Organization (ICAO).

A number of factors made the aviation industry the logical next sector to be added to emissions reductions scheme. Driven by globalization and the increased need for mobility, air travel is growing and will continue to do so. So are emissions: Between 1992 & 2002, emissions from international aviation increased by 73%. Currently, aviation only accounts for about 1.6% of global CO2 emissions but the industry - which is acknowledged to be the fastest growing emittent - is expected to directly contribute 2.5% to global warming by 2050 if business is conducted as

usual (based on existing technologies). Considering also non-CO2 effects of the aviation sector (e.g. Nox and water vapor), the industry share of total emissions is expected to be about 5%.

Although fuel use per passenger-km has been reduced by 60% in the last 35 years, most projections suggest a slower rate of improvement in the next 20 years - about 1% per year. This will not be enough to neutralize the effect of increased air traffic (which is estimated at 5-6% per year), and the growth in emissions is likely to continue in the decades to come. While emissions from aircraft engines are similar in nature to those resulting from other fossil fuel combustion, they are unique in that a significant proportion are emitted at high altitude, which increases the pressure on the aviation industry to further reduce greenhouse gas emissions.

In conjunction with the reduction of bottlenecks in airspace and ground capacities, the optimization of air-traffic management, the development of new engine technology and new fuel sources, emission trading might be a viable economic option to incent and speed up the application of emission-reduction levers by air carriers. For airlines, it can be a workable solution which will avoid the imposition of environmental taxes, if it is applied globally and effectively by all industry of the aviation value chain.

Although aviation currently accounts for only a small percentage of total greenhouse gas emissions, its inclusion in such schemes as ETS can assist in gaining a little more control over emissions and enable the industry to contribute its share in the battle against global warming.

“The security of people and nations rests on four pillars - food, energy, water and climate. They are all closely related, and all under increasing stress”

-Tom Burke

Sustainable Solutions for Environment



Emergent Ventures India

Plot No. 19, Sector 33
Gurgaon 122001
Haryana, India

Phone: +91-124-4353100/4266269
Fax: +91-124-4102980
E-mail: contact@emergent-ventures.com

Team

Nishant Goyal

with contributions from

Aseem Chaturvedi & Aditya Mudgal

Emergent Ventures India is a global Consulting firm providing Climate Change Mitigation solutions. our solutions entail emissions reduction & management advisory, clean technology implementation, development of renewable energy projects and carbon finance. At EVI, we pride ourselves on a potent mix of rigorous analytical skills, boundless creativity, and a roving eye for "Sustainable Solutions for the Environment." We work with more than 150 clients and are managing more than 75 million Carbon Credits for our clients. We provide services to clients in Pakistan, Thailand, Indonesia, Malaysia, Bangladesh, Sri Lanka, Africa and Europe. Recognizing that clients must adapt to the low-carbon society of the future, EVI helps companies understand potential risks & opportunities arising from climate change and provides solutions in the area of risk mitigation and clean technology adoption. Our insights into clean technologies for greater Energy Efficiency are drawn from a deep well of knowledge resulting from tireless, meticulous research. In collaboration with our clients, we strive to turn those insights into on-the-ground sustainable development by using innovative financial solutions like Carbon-backed financing and debt-equity sharing, making otherwise expensive technological changes possible by attracting greater investment

Carbon Market Updates

Compliance Market

EUAs rebounded considerably over the past month, as market participants covered their short-selling and low prices prompted more buying. EUAs were up more than 50% from their all-time low of €8.20 on Feb 12th to touch

€12.36 on Mar 13th. This was largely due to higher German power prices, higher demand from utilities due to compliance deadlines, lower supply from industrials, and increased interest from financial institutions. However, trading volumes dropped on BlueNext as surplus selling decreased from industrials. Some downward fluctuations were seen in the first few

days of March which corresponded with lower oil prices, indicating a re-alignment of carbon and oil prices.

CERs moved along with EUAs and saw a return to levels of

above €10. Spot CERs continue to trade at a premium to Dec09 delivery. Increased buying interest from Australia were also a contributing factor as the Australian CRPS is expected to allow some import of CERs in the national cap-n-trade, leading to more companies being interested in banking CERs and signing forward contracts. The price of primary CERs also rose in

accordance with an increase in sCER prices. Current forecasts indicate an EUA price of €25 by 2012, with CERs close behind.

Voluntary Market

CCX prices saw a decline over the second week of March. Trading volumes also decreased, and

the fall in prices was mostly due to an oversupply of credits.

VER prices have remained at the US\$ 5-7 levels, with Gold Standard VERs in the €6-8 range. This week marks the launch of the VCSA registry, which is expected to increase buying interest as a tracking and retiring system is now in place for VCS VERs.

Commodity	16/02/09 Close		13/03/09 Close	
	BlueNext Spot	ECX Dec09	BlueNext Spot	ECX Dec09
EUA	€8.24	€8.40	€11.84	€12.29
CER	€7.95	€7.72	€11.20	€11.16
CCX CFI 2008	US\$ 2.00		US\$ 1.50	