

VK:e Updates...



Vertical Axis Wind Turbine

India has seen rapid development in its renewable sector especially wind energy. Renewable energy sources contribute over 30% in India's primary energy supply. Wind turbines are being promoted in 29 models by 18 manufacturers in the country, mainly through joint-ventures or under licensed production agreement.

India has achieved 14550.68 MW from wind energy till June 2011. Based on assessment that are likely to affect in future energy growth, VK: e is exploring possibilities of using a Vertical Axis Wind Turbines in urban areas.

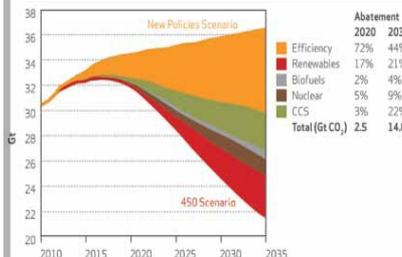
Training program on Autodesk VASARI



It is a building design tool that focuses on conceptual modeling with parametric energy simulation to generate comparative analysis reports for multiple design cases.

It supports performance-based design via integrated energy modeling and analysis features. Ar. Shabari Shaily from VK:e and Ar. Mansi Mehta from VK:a attended a workshop on Auto desk VASARI.

Coal – Energy for Sustainable Development



Key technologies for reducing CO2 emissions

Across the world there are **1.3 billion people without access to electricity**. The problem is spread across the developing world which accounts **95% of people in energy poverty**. They are living a life without accessing the opportunity provided by modern world. An estimated 400 million people in India still lack access to electricity. The International Energy Agency (IEA) estimates that in 2035 there will still be one billion people without access to electricity and 2.7 billion without access to clean cooking fuels. Therefore, the world needs an energy that is accessible to those who needs the most.

According to the World Coal Association, in the light of economical equity of access to power by masses, coal and other fossil fuels have proved more efficient as compared to nuclear, hydro and renewable energy that otherwise encourage the clean energy mechanism. The World Coal Association asserted the fact claiming enough availability of coal reserves globally to serve forthcoming 118 years for current consumption rates.

The report also addresses the global action towards climate change. The World Energy Outlook 2011 highlights that achieving the Energy for All case would only increase CO₂ emissions by 0.8% and improving the efficiency of the oldest and most inefficient coal-fired plants would reduce CO₂ emissions from coal use by almost 25%, representing a 6% reduction in global CO₂ emissions. So the choice of energy sources for bringing electricity to those who need it will make almost no impact on climate action. Clean coal technologies and Carbon Capture and Storage(CCS) can enable the world's coal resource to be used in line with environmental and climate objectives.

Energy is essential for household, individual and critical growth of economy and society. **World Coal Association** recently reports that coal can bring energy access to millions and support economic growth in developing countries.

Did you know...

Energy saved from one recycled aluminum can will operate a TV set for 3 hours, and is the equivalent to half a can of gasoline.

Glass produced from recycled glass instead of raw materials reduces related air pollution by 20%, and water pollution by 50%.

One ton of carbon dioxide that is released in the air can be prevented by replacing every 75 watt light bulbs with energy efficient bulbs.

Every year approximately four billion tons of carbon accumulates in the air, about 30% of this comes directly from the continued burning of the rain-forests.

Take action!

Do a water audit:

Record how much water you use for different activities in a day with time, Share your findings with your family and friends. Ask them to repeat the same. Try to reduce the water usage for activity which consumes the maximum.

Blue rating for industries

Water is under pressure due to increasing demands in all cases. The deteriorating water quality and declining fresh water availability accelerate the need for water conservation.



It is mandatory to install water treatment plant in new residential development and industry has to treat the effluent before discharging to the municipal sewers. However there is no restriction to any industry of how much water they can use.

In relation to focus on green building, India is set to become the first country in the world to come up with "blue ratings" - on the lines of green ratings for eco-friendly ventures - for increasing management of water, fast turning a scarce resource, in industry.

In India, about 80-85 percent of water is used for irrigation, industry uses 5-6 percent and drinking water is six percent. In next ten years, the industry usage of water will go up to 10 percent if we maintain the same growth.

The CII is likely to come up with the water standards by March next year and is already in the process of formulating the guidelines. The standards will cover 3 key areas - reducing consumption of water within industry, water footprint of the products manufactured and contribution to society (industry should not compete with society for water).

This benchmark will make any industrial processes and utilization to be more water efficient and aid to reduce the stress on water resource.

Qatar has the highest carbon emission



52 story Tornado tower, Qatar

Qatar's carbon emissions per capita are the highest in the world and three times as high as the United States.

According to the Living Planet Report, produced by the World Wildlife Fund and the Global Footprint Network, among others, if every human being lived like the average Qatari,

the Earth would need nearly five times more resources than it has. The report says the consumption doesn't include the oil pumped from the desert however, energy consumption is sky high in this Middle East countries. It is because the citizens are provided with free electricity and free water. The water is supplied after desalinating sea water which requires intensive energy.

Energy demand is rising by 7 percent a year to run the desalinators and air conditioners that maintain life in the desert and the natural gas production equipment that funds it.

Note Triple Glazing

Fitting triple glazing in offices to reduce emissions is a waste of money because it increases the building's carbon footprint. The recent research on whole life carbon analysis of a building shows that the use of triple glazing increases the carbon footprint as well as cost. This is because the additional energy used in manufacturing the triple glazing is not offset by the energy saving in use when compared with double glazing.

Upcoming events

World Environment Day, 2012, 5th June. The is "Green Economy: Does it include you?"

Advanced Training Programme on Green Building Rating Systems, 7th & 8th June, 2012, Kolkata.

Training program at Indore and Gurgaon by GRIHA

Workshop on Green Building, 7th and 8th June, 2012, Pune

Gauri says,

"Reduce -Reuse-Recycle (3R's) is the need of the hour to cut down consumption of the fast depleting natural resources. 90% of the trees that are cut down across the world today are for the sole purpose of manufacturing paper. Recycling 1 ton of waste paper can save cutting down of 17 matured trees and 15000 liters of water. 3R practices in use of paper helps in reducing the decomposition of paper in landfills thereby reducing the greenhouse effect.

Lets Save paper-Save Earth!!"