

sci-tech.



Rubbish to provide green fuel for planes by 2014

British Airways in collaboration with the US bioenergy company Solena is planning to establish Europe's first green jet fuel plant that would turn rubbish into carbon-neutral aviation fuel. When it is up and running in 2014, the factory will turn 5,00,000 tonnes of landfill waste - including household and industrial rubbish - into 16 million gallons of carbon-neutral aviation fuel every year

BIRD'S EYE VIEW

Solar collectors in Sahara may supply the whole world with electric power



Photovoltaic array at the National Solar Energy Centre, Israel

WASHINGTON: Engineers from Germany are planning to erect solar collectors in the Sahara Desert, in what may be the biggest solar energy project ever that would be able to supply the whole world with electric power.

There is more than three-and-a-half-million square miles of space available in the Sahara Desert for the proposed project.

A solar array big enough to supply the whole world with electric power could fit into just 35,000 square miles. That's just one per cent of the Sahara. According to a report in *Discovery News*, they engineers plan to collect the sun's heat with

something called parabolic troughs.

A parabolic trough is like a big pipe split in half lengthwise that focuses sunlight on glass tubes that run above the trough's center.

The tubes carry special oil that's heated to more than 700 degrees Fahrenheit.

The hot oil turns water into steam to spin turbines that will drive electric generators.

The project's first goal is to meet 15 per cent of Europe's electricity needs by 2050.

The only real catch is getting the electricity from the Sahara to Europe, but the researchers say that they will soon solve this problem as well. ANI

Scientists create the hottest temperature ever in a lab

WASHINGTON: Scientists have created the hottest temperature ever - 4 trillion degrees Celsius - hot enough to break matter down into the kind of soup that existed microseconds after the birth of the universe.

They used a giant atom smasher at the Brookhaven National Lab in New York, US, to knock gold ions together to make the ultra-hot milliseconds explosions enough to give physicists fodder for years of study that will help them understand why and how the universe formed.

"That temperature is hot enough to melt protons and neutrons," Brookhaven's Steven Vigdor said at a meeting of the American Physical Society in Washington.

These particles make up atoms, but they are themselves made up of smaller components called quarks and gluons. What the physicists are looking for are tiny irregularities that can explain why matter clumped out of the primeval hot soup.

They also hope to use their findings for more practical applications - such as in the field of "spintronics" that aims to make smaller, faster and more powerful computing devices.

They used the Relativistic Heavy Ion Collider (RHIC), a particle accel-



An image of a tracker at RHIC

erator and collider that is over 4 kms around and 12 feet underground to collide gold ions billions of times.

"The predicted melting temp of protons and neutrons is 2 trillion degrees. The temperatures at the core of a typical type-2 supernova is 2 billion degrees," Vigdor said.

Something happened in the milliseconds after the Big Bang to create an imbalance in favour of matter over anti-matter. If there had not been this disparity, matter and anti-matter would have simply reacted to create a universe of pure-energy.

Later this year, physicists using the Large Hadron Collider hope to smash lead ions together to create even hotter temperatures that should replicate moments even earlier in the birth of the universe. REUTERS



(Left to Right) Three new Sony Ericsson phone models Vivaz Pro, Xperia X10 Mini Pro and Xperia X10 Mini are displayed at the Mobile World Congress in Barcelona

website

MYINSURANCECLUB.COM

A useful Web site if you are planning to get insurance in India. The site compares various plans and shows you the difference between them