



Here Comes Air-Powered Motorcycle

Most motorcycles in the world today use engines that burn gasoline, contributing to greenhouse gasses and adding air pollution to the surrounding area.

Now two scientists in India have conceptually designed a new, cleaner motorcycle engine that uses compressed air to turn a small air turbine, generating enough power to run a motorcycle for up to 40 minutes.



Replacement

Their design, described in a recent issue of the *Journal of Renewable and Sustainable Energy*, could be combined with a compressed air cylinder as a replacement for traditional internal combustion engines.

In areas where motorcycles are a major source of public transportation, in developing countries like India, such a technology could cut emissions substantially if widely implemented.

According to Bharat Raj Singh, one of the two authors on the paper and a researcher at the SMS Institute of Technology in Lucknow, some 50 to 60 per cent of present emissions in some areas could be reduced with the new technology, though a number of technical challenges remain.

The major hurdle

Designing a compact but high-capacity compressed air tank to store sufficient "fuel" for long rides is a major hurdle.

Young Tripura entrepreneur leads by example

A young woman entrepreneur in Tripura is not only generating employment for people, but is doing her bit for the environment by converting waste to wealth.

Salma Chowdhry is a housewife-turned from Golchakkar village near the Indo-Bangladesh border in Tripura.

In 2007, she along with a team of 25-members formed Samrat Papers, an outfit to recycle waste paper, discarded paperboard and cartons with a small government loan.



“I had noticed that Indian wastepaper made its way illegally to Bangladesh so, I wanted to set up something here, which would create employment for our people,” Chowdhry said.

“We set up the factory where we collect waste paper, recycle it and export the product to Bangladesh and other states. Many people today have got employment in our factory,” she added.

A majority of over 70 workers at Samrat Papers are housewives, who now earn extra income that helps them in looking after their families.

“We work as part-time labour and earn an additional income of Rs. 1300 per month. This is a great opportunity to earn for our family,” said Rupa Das, a worker.

“Earlier we were just housewives but after being employed here we are now earning members as well. This extra income helps in educating our children and also running our families smoothly,” said Asma Begum, another worker.

The final products are sold in Tripura and other states.

Cardboard is exported to Bangladesh and helps earn foreign exchange.

Indeed! Salma Chowdhry’s initiative has changed many lives in the non-descript village.

More significantly, her contribution to saving trees by recycling waste paper is noteworthy.

Siemens to Develop Renewable Energy Technologies in India

It was revealed that Siemens looks forward to invest into the development of solar and wind energy systems in India. Over the next 3 years the German engineering company will invest \$346 million in the green energy sector of one of the world's fastest developing economies.

It is worth mentioning that a third of its investments Siemens will use to develop the wind turbine technology. At the same time it will also put some money into the development of solar technology.



According to Peter Löscher, chief executive at Siemens, the company is going to increase its workforce in the country to 25,000 people. It will build a turbine manufacturing facility near Tamil Nadu and Gujarat on India's west coast. In the same region the German giant is expected to construct new wind farm developments.

Mr. Löscher mentioned that currently the main goal is to make wind turbines for Indian consumers. However, Siemens might think about exports somewhat later, informs BusinessGreen.

At the moment the government of India is considering approving official green energy targets. This could provide some help for Siemens along with other companies who express their interest in developing renewable energy technology in India.

It would be worth noting that recently the Indian government decided to subsidize utilities that make use of solar energy, allocating \$5 billion over a period of 20 years.

Soon, vehicles to run on 'fuel' from CO₂

Scientists are inching closer to produce a new fuel from carbon dioxide and sunlight which they claim will help meet world's energy needs and minimise carbon emissions.



A team at Sandia National Laboratories in Albuquerque, New Mexico, is developing the technique which will produce “synthetic liquid fuels” in solar-powered reactors. Experiments have also shown that the reactors can absorb carbon dioxide (CO₂) and turn it into carbon monoxide. The same reactors can also be used to turn water into hydrogen and oxygen.

The two can then be reacted together with a catalyst to form hydrocarbon fuels. Researchers say fuels made in this way are sufficiently similar to those currently used in cars.

Source: www.thehindu.com, www.newkerala.com, www.infoniac.com, timesofindia.indiatimes.com

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