



The future is electric

Description



Electric based mobility is redefining personal transportation.

An unusual event happened at the Auto China car show last year. As it goes, auto shows offer sneak previews of upcoming models and new developments in automobile technology. There was palpable excitement at the VolksWagen (VW) stall in Beijing that had a theme for the year – ‘think blue’- to symbolise the manufacturer’s pronounced leaning towards sustainable and environment friendly motoring. It is VW’s stated objective to become ‘the most ecological car maker in the world’, going one step ahead of the Japanese, whose concerns still remain more economic than ecological.

While visitors and the press waited for what they thought was going to be the unveiling of yet another model from the progressive VW stable, in rode their head of research on a 2.5 ft high electric cycle. Tellingly christened *Bike.e*, this is, an all electric foldable bicycle that fits into the spare tire vent of a VW car. It has a charge range (the distance it can go on a single electric charge) of 20 kms and a maximum speed of 15 kms, which, is the limit for such vehicles in the countries of the EU.

Now, what was the excitement all about? Was it that VW’s head of research opted to come in, riding a bicycle rather than in one of their new car models? Yes, indeed! But what was the significance of this statement? In an interview that he gave to the press later he said that the point of the electric bicycle was not to add value to their cars in any direct way but to add value to the cause of eco friendly motoring in general. The *Bike.e* (see picture) symbolizes an alternative stand- alone means of mobility that could supplement a car ride as well as offer you an independent one.

VW are a farsighted automobile maker who see that the future will play host to a wide variety of personal mobility devices that go beyond the car and are fun, functional, and green. A lot of them will be single or two wheeled. In the light of these emerging trends VW has chosen to redefine themselves as an innovative mobility company first and a car manufacturer next. Apart from steadily rising fuel prices and stringent emission standards, a third factor to have prompted the conception of the *Bike.e.*, is the fact of many inner city centers of Europe voting to go car free. A portable bicycle eminently fills that mobility gap created by this stricture, helping you get from parked car to inner city work or shopping in clean biped style. And the going gets easier if your cycle is electrically assisted!

The electric bicycle is more than a mobility novelty. For many years now, the transportation and mobility industry have been preparing for a world where vehicles can no longer be powered by fossil fuels alone. Hybrids (combining petrol-diesel with electric-gas motive power), which were interesting concepts until about a decade ago, are now entering mainstream car markets offering the twin benefits of fuel savings and low emissions. It’s a sign of the times.

Industry research and prototyping reveal that the future of mobility is the full blown electric vehicle that will arrive in many avatars – from the SUV to the humble bicycle, gracing trucks, tractors, trains and buses in between- over the next ten years. While considerable research is still required in the four wheeler category (particularly in the area of drive trains), the electric cycle and scooter segment is gaining technological maturity faster since it is not dependent on the complex systems interplay needed in four wheelers.

A tale of two countries: united by the bicycle, divided by visions for it

China is the world’s leading bicycle maker and has also, the world’s largest bicycle market accounting for more than third of its production. Along with India, the bicycle still remains the most used form of personal transportation in both these countries despite the aims of development to move it down the social and economic value chain. But China, unlike India, has realized that the cycle (of all things) could be its secret weapon in the fight against carbon, congested cities and balance of payments to oil cartels. To promote this new symbol of freedom and green mobility the Chinese authorities have granted a slew of privileges and concessions to electric cycles, scooters and motorbikes that include subsidies, low licensing fee, tax concessions and free parking in prime city zones. Major Chinese cities provide electric vehicle charging stations at important points to facilitate continued mobility, given that e-cycles have limited charge – distance range. Additionally, through a planned administrative move, parking fee, taxes and road fee on motorcycles are made so high that it actually acts as a disincentive to buy and own a motorcycle or scooter in China.

In contrast, electric cycles are perceived more as toys and novelties rather than serious transportation alternatives in India. Much of this has to do with our very high traffic densities (amongst the highest in the world), poor city and road planning (giving low priority to pedestrians and bicyclists), market lethargy and a lack of governmental vision. India, like China, has an active bicycling culture that can be leveraged to great advantage with proper incentives and purposeful interventions. Despite the relative invisibility of the bicycle on Indian roads (when compared to its

motorized counterparts), the fact is that it still remains the preferred and only means of personal mobility for about 65% of Indians. Now think of what could happen if we could electrify these. It would unleash a lot of motive power that is cheap, sustainable, pollution free and efficient.

The electric cycle is a silent and powerful mobility revolution that is waiting to happen in India. This year will witness the entry of a new generation of electric cycles from the country's major bicycle makers – BSA, Hero and Atlas – following rebates and cuts in customs duties for components and parts for e cycles and e scooters. A national EV (electric vehicle) policy is being shaped and is likely to become official by the end of the year. It promises attractive subsidies to buyers and incentives to makers. Electric kits are also now available fairly cheap for those who want to e power their regular bicycles. So if you have green leanings, want to save money on some fuel bills, support sustainable technologies or just like to add some zip to your bicycle, then it's time for you to think and go electric. Happy (carbon free) riding!

To know more about electric vehicles and electric cycles in India log onto evfuture.com, India's leading EV portal.

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