# Electric Avenue

All kinds of businesses are lured by potential markets in China, but the e-vehicle market has already revved up

By Dr Michael Sikora

IN THE MIDDLE of 2010 around 120 million electric bikes swarmed through China's city streets. By the end of the year there will be 140 million e-bike owners, according to the Chinese online news service, cnstock.com. Given that the Ministry of Transport recently counted 199 million motor vehicles, the numbers are impressive.

In the past few years the green auto market in China has also been gaining momentum, driven by targeted support from the central government and consumers' familiarity with other green vehicles.

## Full Speed Ahead

As early as the 1990s, Chinese authorities banned motorcycles from the cities and outlined the optimal framework conditions for the then fledgling e-bike industry. With this stimulus, the number and range of vehicles has increased steadily. The model range has extended from basic electric battery-powered bicycles, to urban e-bikes equipped with shopping baskets, chic Vespa-styled scooters in retro styles, and high-performance e-scooters. A 2008 study conducted in 11 cities in China on the drive type in the two-wheeled segment revealed that 28 per cent of the vehicles were already equipped with electric drive. Only 15 per cent had a conventional petrol engine while 57 per cent of the population still pedalled. As of 2010, the proportion of traditional bicycles in the Greater Shanghai area dropped to below 50 per cent.

Having established a position as global market share leader as far as e-powered two-wheeled vehicles are concerned, China is taking an interest in electric passenger cars, with considerable success. The world's largest auto market has a number of advantages that allow China to move into poll position within this industry. Consumers are very familiar with electric mobility, and in addition China has access to strategic mineral resources, well developed technologies for batteries and cost-effective vehicle components, and strong support from both the central government and local authorities favouring electric vehicles.

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## Global Business in the Fast Lane

In the passing decade authorities have been more than proactive in their efforts to support domestic businesses, allowing them to make the most of a growing opportunity. Out of 49 Commercial Original Equipment Manufacturers (COEM) which have been

### Ten reasons why China is the green auto leader

**1)** China's has the greatest variety of mass production e-bike models

**2)** About 120m vehicle owners are already familiar with operating and recharging e-vehicles

**3)** Many auto buyers have had an e-bike past or experience

**4)** In China, private transport occurs mainly within the cities where e-vehicles can access charging facilities

**5)** High congestion demands slower speeds, and e-vehicles are better suited to this pace

**6)** China has a large and highly competitive supply landscape of low-cost auto components

**7)** There is a highly competitive Commercial Original Equipment Manufacturer (COEM) environment of about 20 battery manufacturers

**8)** There is an assured supply of raw materials

**9)** E-vehicles will help China to become less dependent on foreign oil imports

**10)** Strong central leadership can help to promote electric vehicles

granted the state production permit for New Energy Vehicles (NEV2) there is only one foreign vehicle manufacturer (SAIC-GM).

However, the consistent pursuit of technological leadership in China within the NEV segment has also attracted German OEMs, such as Daimler and Volkswagen, which entered into partnerships with the leading Chinese EV manufacturers. By the end of May 2010, BYD and Daimler established a joint venture, Shenzhen BYD Daimler New Technology Co. Ltd., which will work as a research and technology centre for the development of electric vehicles for the mass market. With an investment of EUR71m (USD98m) both companies plan the mass production of electric cars for the Chinese market starting from 2013. The VW group also aims at cooperation with the battery maker BYD, and in May both companies signed an MoU in Wolfsburg for the evaluation of cooperation in the battery and vehicle segment.

China's domestic manufacturers, such as BYD, Zoyte, Jiangnan Auto, Hafei Automobile, Chery and SAIC, are also looking for opportunities abroad, and are ready to export to Europe. By 2012, the electric MPV e6 from BYD will be available for the European market. It will be imported to Austria by an independent multi-brand dealer, the Wolfgang Denzel Group, which signed an agreement for 100 e6 models from BYD in mid-June 2010 in the presence of the Vice President of the State Council, Zhang Dejiang, and the Austrian Vice Chancellor, Dr. Josef Pröll. Pilot projects with the first test fleet of electric vehicles have been scheduled for 2011. In anticipation of the EV launch in Europe, BYD is working on the establishment of its European HQ in Germany, near Frankfurt. They will focus on marketing eco-friendly hybrid and electric cars. In the United States, the market launch of BYD's EV has been announced for 2010, which shouldn't be a surprise as ten per cent of the company belongs to the American financial investor Warren Buffet.

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China's BYD will make the e6 model available for the European market.

## Green Light for Future Sales

In early June 2010, the EV support programme – initially open only to fleet operators – was launched for private buyers of electric cars across five cities with a combined population of over 50 million. In July 2010, the NEV Bureau of the Shanghai Municipal Office initiated a special subsidy programme. Buyers of hybrid cars have the right to an environment bonus of Rmb50,000 (USD7,482) by the end of the year, whereas buyers of pure electric cars are entitled to grants of up to Rmb60,000 (USD8,978). Early next year, citizens of the Shanghai motor-metropolis will be able to choose from several models: the electric version of the midsize sedan Roewe 550, or the BYD e6 MPV, the Zoyte E-SUV, or pickup the Hafei E.

The infrastructure will need to catch up fast or it will inevitably slow the green car drive. Strategically located charging stations will be crucial for the success of this green conversion, and other challenges could include slow charging times, a lack of uniform global charging standards, and the relatively slow roll-out of mass-market electric cars. According to the Shanghai's NEV policy maker, Hua Liu Jian, these issues are high on the agenda. The city aims to reach sales of 20,000 electric cars in 2012, and plans to set up 25,000 charging points and more than 25 fast-charging stations.

Increasing choice and convenience coupled with incentives programmes could see demand sky-rocket, and manufacturers are bracing themselves for a rush. This month's Shanghai Business Review reports that China's annual production capacity of electric motor vehicles will reach a million units by 2020, according to the Ministry of Science and Technology. While the population of drivers continues to grow at a speed of more than 22 million per year, there will be plenty of consumers ready to take the wheel. SBR

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