POWERING THE REVOLUTION IN SAFE TRANSPORTATION

In 2009, a total of 13.5 million cars were sold in China. In the first four months of 2010 alone, however, 6.8 million new cars had been sold.

Why is this important? If China can grow from 1.3 million cars sold in 1995 to 13.5 million in 2009 and, maybe, 18 million in 2010, what happens if India grows at the same rate? Today, in India, car sales are below 2 million for the entire continent! The internal combustion engine (ICE) revolutionised transportation in the 20th century. Oil has spread wealth across many nations but, at some point, those with a scarcity of oil will remain at an economic and, I believe, a military strategic disadvantage.

One only has to visit the cities of Shenzhen, Shanghai, Beijing and Changzhou to see the vast economic changes taking place in China and the impact on pollution. Similar changes are happening in Mumbai, Chennai, New Delhi, Pune and Jakarta. Powerful infrastructure changes are being implemented in these emerging economies. They must have the right to advance their economies in the way that Europe and the USA were transformed in the 19th and 20th century. But what is it that we can do to help these new economies develop new infrastructures and, at the same time, reduce pollution?

The problem with transportation today?
Most vehicles are powered by ICE using petrol or diesel — both finite commodities. A full tank of petrol will take a car several hundreds of miles; it is easy to refill, but once consumed it will never be replenished.

Believe it or not, at the beginning of the 20th century the great debate was whether the internal combustion engine or the electric car would succeed. Petrol won because it was cheap, plentiful and easier to power the transportation units of the day. The problem with electricity was charge points and weight; the lead acid-battery systems required to take the vehicle the same distance as the petrol engine were prohibitively weighty and cumbersome.

Even today, a high-speed car with an electric motor requires a battery weighing 450kg, and the distances covered are far less than the petrol engine. These batteries, known as lithium-ion rechargeable batteries, are prone to explode and short circuit and, for safety reasons, must be encased with metal — a substantial increase in weight.

OXIS energy
The future of electric transportation is dependent on a new generation of batteries with high energy and low weight.

OXIS's breakthrough technology combines the highest possible energy density with the necessary safety standards required of the European automotive industry to meet the longer term requirements of both automotive manufacturers and governments.

The real breakthrough with OXIS technology is that its rechargeable batteries can provide the specific energy required to replace the internal combustion engine. The impact is breathtaking — a real replacement for the petrol engine! By definition, the company is making a contribution to emerging economies by providing a method to significantly reduce the carbon footprint emitted by motor vehicles.

Huw W Hampson-Jones
Chief Executive Officer
OXIS Energy Limited

Tel: +44 1865 407017
Email: huw@oxisenergy.com
Website: www.oxisenergy.com