



Electric cars to spur demand for metals



Electric cars such as the Nissan Leaf may look no different from the standard family runaround. But the new materials that go into them could revolutionise the market for metals used in the industry, opening up a new field for commodities investors.

“We identified electric vehicles as an area where we are at an inflection point for demand,” said Duncan Goodwin, portfolio manager of the Baring Global Resources Fund.

Around 12 percent of the fund’s \$378.2 million in assets is exposed to materials that are used in electric vehicles.

It has investments in New York-listed Albemarle and Australia’s Orocobre, two companies producing lithium, a key element in electric car batteries. Shares in both companies have risen sharply this year.

Governments, keen to push growth in electric cars in a bid to meet their carbon emissions targets, are tempting consumers with perks like subsidies, free parking and tax breaks.

Growth in the market is in turn creating an opportunity for commodities investments currently estimated at \$235 billion.

Predicting how much of any metal will be needed to meet demand for electric vehicles in the longer term is tough and advances in battery technology could alter the mixture.

Getting drivers to adopt electric cars remains a challenge — the need to charge them up frequently and time taken to do so have put off many potential buyers.

Still, concerns over the pollution created by diesel-powered vehicles mean that electric car prototypes dominated the Paris car show held recently.

The number of electric and hybrid vehicles on the road worldwide surpassed 1 million last year, according to the International Energy Agency.

While estimates vary, IHS Automotive expects electric vehicles to represent nearly 4 percent of all light vehicles worldwide by 2020, equivalent to 3.9 million cars, up from just over 14,000 in

2010. Most electric car batteries use lithium nickel manganese cobalt oxide (NMC) cathodes and graphite anodes.

“Rare earth” metals dysprosium, neodymium and terbium, chiefly mined in China by companies including Xiamen Tungsten and China Minmetals Rare Earth Co, are used in some electronic components of the motor.

“It’s clear that electric cars from today’s point of view will have lithium ion-based batteries,” said Horst Friedrich, director of Germany’s Institute of Vehicle Concepts.

“We’re talking about lithium, and... metals like cobalt, iron phosphate, rare earth elements.”

Much of the world’s lithium comes from an area called the “Lithium triangle” in Chile, Argentina and Bolivia. Mining it is an increasingly lucrative business.

Prices of battery grade lithium in China, the biggest lithium-ion battery producer, surged to above \$20,000 a tonne this summer, nearly three times higher than a year earlier, as demand grew.

“The lithium industry is going from 160,000 tonnes of LCE (lithium carbonate equivalent) today to at least 260,000 tonnes by 2020,” said Simon Moores, managing director of Benchmark Mineral Intelligence.

Albemarle is investing an undisclosed sum to boost its production of battery-grade lithium salts to try to supply half of that projected demand growth, said John Mitchell, the president of Albemarle’s lithium unit.

Farmers protest pollution by Vedanta Aluminium

Farmers of Bundel village under this block in Kalahandi district sat on a dharna before Vedanta main gate protesting release of aluminium powder by the company. According to sources, people of Bundel village depend on agriculture for their sustenance. However, release of aluminium powder by the company affects their farming. Acres of crops have been damaged, bringing heavy losses to them, according to a news report.

Several complaints have been lodged by the farmers with Vedanta authorities but in vain. No measures have been taken in this regard over past few years, the villagers said. The powder has pushed villagers and livestock of the village to the brink, they said.

Left with no options, the farmers took affected crops like paddy, pulses saplings and other crops and sat in a dharna. Demanding immediate measures and compensation for the crop losses, they warned to continue the agitation if no steps were taken before long.



On learning the incident, Lanjigarh SI Rajendra Mahapatra reached the spot and tried in vain to pacify the agitators. Later, Vedanta CSR head Ranjan Sharma, power plant head Biraja Shankar Munda, public relations officer Sidharth Behera and Rabindra Nath visited the affected farmland and promised to bring the matter to the notice of Vedanta plant chief Bimalendu Senapati.

The stir was later called off after officials assured measure by December 18. It may be noted here that although the plant has been operating in the region for several years, there are few jobs for the villagers. Most people in the village work as bonded labourers.