

ELECTRIC CARS:

Chinese EV makers well placed as industry becomes more market-driven

>> FROM PAGE 1

With 352,000 new EV registrations in 2016, electric car sales in China more than doubled those of the previous year.

The growth looks set to continue as the Chinese government forecasts that 800,000 green energy vehicles will be sold this year, made up of both fully electric and hybrid (electric-and-fuel-powered) vehicles.

According to the China Association of Automobile Manufacturers, a total of 507,000 fully electric and hybrid vehicles were sold in the country in 2016. Estimates show that sales of fully electric vehicles registered by the end of this year could reach around 555,000.

While Germany takes the top spot for EV technology in the Roland Berger survey, China takes the lead in industry.

"In industry, China has confirmed its pole position. The reason for this is the continuing rapid growth of the market, more than 90 percent of which is supplied with lithium-ion cells produced locally. This high local share is partly due to the fact that subsidies only apply where there is local value creation," the survey said.

Across the globe, however, the uptake of electric versus fossil fuel-powered vehicles still has a long way to go. Other than China, France is the only country to have more than 1 percent electric car ownership.

Still, China is extremely well placed as the switch to EVs gathers pace.

Simon Moores, managing director of Benchmark Mineral Intelligence, told *China Daily Asia Weekly* that "there is no doubt China is the global hub for the electric vehicle revolution".

"China is producing its own electric vehicles, but the export vehicles are first likely to be Western-branded ones.

"For example, (US electric-car maker) Tesla is looking to make batteries in a new Gigafactory near Shanghai. This is the first step in making Tesla EVs in China for the domestic and export market. VW has similar grand plans," he said, referring to Volkswagen.

For foreign car manufacturers to have power in the EV market, "they need to be in China," Moores added.

BMW has successfully partnered early with Chinese EV makers, he said, but VW's involvement will bring a major boost to the market.

"While (VW) has been slow at entering this EV space, once it gets going the group will shape the future of auto mobility. And for that, it will need to be in China in a big way."

In other developments, Volvo recently announced that all of its new vehicles will be electric or



A man walks past electric cars parked on a sidewalk in Beijing on April 25. Electric car sales in China more than doubled in 2016 over the previous year. AFP

hybrid from 2019. Chinese carmaker Geely is Volvo's parent company.

Moores believes carmakers' plans to go electric are justified and that a recent drop in the oil price will not have a long-term impact on the growing market.

"While the oil price has some short-term incentivizing impact on EVs, the reality is that people are starting to buy them not because they are electric but because they are more desirable, cheaper and better priced.

"This will be the trend going forward, and soon, maybe from 2020 onwards, the oil price will become irrelevant."

China is also very well positioned in the production and export of lithium-ion batteries typically used to power electric cars.

"China already produces the bulk of lithium-ion battery cathode material," said Moores.

"It is locking up the lithium supply chain through Ganfeng Lithium and to a lesser extent Tianqi Lithium. It controls cobalt supply and battery grade refining and produces the vast majority of the world's graphite anode material."

Nearly 70 percent of all new lithium-ion battery capacity being built in new megafactory structures will be based in China, he said.

"These are being constructed by Chinese battery majors like CATL and Lishen, as well as Japanese and Korean joint ventures with Samsung

SDI, LG Chem and Panasonic," said Moores.

In real terms, China's lithium-ion battery capacity in 2016 was 28 gigawatt-hours. By 2020, this is estimated to leap to 174 GWh, according to data from Visual Capitalist, a Canadian digital media brand.

It is likely that Chinese EV makers with robust battery production will be headed for greater success.

"There is no doubt that to date (Chinese manufacturer of rechargeable batteries and automobiles) BYD has led the world in EV production by sheer numbers, however the sway of industrial power will lie with those that produce battery cells and packs and control the lithium-ion battery supply chain," Moores said.

Ron Zheng, a Shanghai-based partner with Roland Berger, said a number of Chinese EV makers can carve up market share among themselves, particularly in the neighborhood electric vehicle (NEV) market.

NEVs are compact, electric-powered cars, typically with a top speed of around 40 kilometers per hour — considered ideal for inner-city motoring.

Zheng told *China Daily Asia Weekly* that local Chinese automakers hold a 90 percent market share of China's NEV market, as they "started the NEV business early and already had some of the top-selling models".

"Carmakers SAIC, BYD, BAIC and Geely are the current leaders as they

possess strong technology capabilities, while Chery, JAC, Zotye, Changan and GAC are also showing great potential," Zheng said.

"The competitive landscape will change again with new entrants such as NextEV launching their products after 2018. These fancy-looking and fully connected cars will attract customers with good buying power."

Zheng added that by 2020, market share will be a mix of traditional players (49 percent), joint ventures (37 percent), new entrants (10 percent), and with imports (dominated by Tesla) accounting for around 4 percent.

Tesla sales on the Chinese mainland are proportionally smaller than in Hong Kong. According to Bloomberg, 7 percent of all new cars sold in Hong Kong in 2016 were Teslas — boosted by a waiver of the first registration tax for e-cars, representing a saving of \$56,000.

However, new legislation means this tax can no longer be fully waived, which is likely to greatly reduce Tesla sales in the city.

Environmental concerns aside, overall cost is also a key factor in China.

"Consumers have a very complex buying decision-making process," said Zheng. "They will go through comparing the NEV and internal combustion engine vehicles on purchasing cost, which is decided by the NEV price, subsidy, purchasing tax discount and license plate fees in

some cities, such as Shanghai.

"In addition, total cost of ownership is a vital factor, which is decided by the price gap between petrol and electricity, maintenance cost and residual value."

He added that driver satisfaction is also important, and this will be improved by better range on a single charge, and wider coverage with battery-charging infrastructure.

Zheng added that government policy also has an impact on the desirability of EVs in China.

"Incentives are very important for the industry to boost at the beginning, but subsidies are unsustainable due to government budget control and the intention of developing local original equipment manufacturers' capabilities."

Such a shift of the industry from government-driven to market-driven is inevitable, he said.

Moving up in scale, electric-powered public buses are also likely to become the norm, and China is forging ahead.

Moores from Benchmark Mineral Intelligence said that China has considerable focus in the often "overlooked" electric bus sector.

He pointed to China-based battery manufacturer CATL, which plans to expand its cell capacity from 8 GWh to 100 GWh by 2020 to meet expected demand.

"The numbers are staggering. But that shows the (increase) needed to supply electric vehicles and buses."