

Managing the Dragon Blog Post

China Shifts Subsidies for Electric Vehicles

By: Jack Perkowski | July 10, 2018

China is the clear global leader in the production and sales of electric vehicles (“EVs”). Last year, 770,000 EVs were manufactured and sold in the country, a 53 percent [increase](#) over 2016 and almost four times the number sold in the United States. With EVs still at a cost disadvantage to vehicles made with traditional internal combustion engines (“ICE”), rapid growth in EVs has been made possible by China’s very generous subsidy policy. To encourage the growth of the industry, China has provided manufacturing incentives to EV companies, as well as subsidies to consumers who purchase EVs.

For example, substantial incentives for the production of electric buses have propelled electric bus sales in China from just over 1,000 in 2011 to a high of 132,000 units in 2016. While electric bus sales in China were slightly lower last year as a result of cuts in the electric bus subsidy program, 99 percent of the 352,000 electric buses on the road globally are running on China’s streets and roads. There are now over 30 companies making electric buses in China.

In addition to granting incentives to manufacturers of EVs, China has also provided subsidies to consumers who purchase EVs. Depending upon range, China’s Central Government has paid subsidies of from RMB 20,000 to RMB 44,000 yuan (\$3,000 to \$6,600) per vehicle, and most local governments have added from 15 to 50 percent to that amount. Therefore, total government subsidies on the purchase of an EV with a range of 250 kilometers (150 miles) or greater has been 66,000 yuan, or about \$10,000.

In addition to consumer subsidies, many cities provide favorable policies such as the assured issuance of a vehicle license and increased access to HOV lanes to EV purchasers. For example, the city of Beijing caps the number of vehicle licenses issued each month in order to regulate the number of vehicles in the capital city. In any given month, as many as three million applications might be received for the 3,000 available new vehicle licenses, with the remainder going into a lottery pool. Buyers of EVs, however, are exempt from this process and assured of receiving a license.

While China wants cleaner air and has aggressive targets for the adoption of EVs, paying subsidies is an expensive

way for the government to achieve its objectives. Although battery costs have declined in recent years, they are still significantly higher than the cost of a vehicle powered by an ICE.

Therefore, in order to encourage individuals to buy EVs, either the government has to subsidize their purchases, or automakers have to make EVs available at a price that is competitive with an ICE vehicle.

At an average subsidy of \$10,000 per vehicle, China’s central and local governments spent \$7.7 billion on EV subsidies in 2017. However, China forecasts that EVs will total 2.0 million vehicles in 2020, and the government is [targeting](#) 7.0 million vehicles in 2025. Under the current subsidy program, subsidy payments would rise to approximately \$20 billion in 2020 and \$70 billion in 2025. In order to put this number in perspective, the annual [budget](#) of the Chinese government was RMB 20.3 trillion (\$3.1 trillion) in 2017, and the government ran a fiscal deficit of RMB 3.1 trillion (\$460 billion).

Meanwhile, China’s auto market has become one of the most profitable in the world for local and international assemblers alike, and this fact has not been lost on Beijing. Therefore, in September of last year, China’s Ministry of Industry and Information Technology, which oversees the auto industry, [announced](#) a rule change that effectively transfers the burden of subsidizing the development of China’s EV industry from the government to the auto companies.

Under the new rules, which take effect in 2019, a combination of credits and dis-incentives are designed to improve the fuel efficiency of traditional-fuel vehicles, as well as to promote the deployment of EVs. The new rules require automakers that sell 30,000 cars or more annually in China to produce fleets with a Corporate Average Fuel Economy of 42 miles per gallon by 2020, and 54.5 mpg by 2025. OEMs that fail to meet the quota will acquire negative credits, which, if allowed to accumulate, must be offset by either buying positive credits from other companies or cutting the production of fuel-burning cars.

In 2019, local and foreign automakers will be required to [earn](#) points equivalent to 10 percent of the vehicles they

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produce and import into the country, rising to 12 percent in 2020. According to Colin McKerracher, a London-based analyst at Bloomberg New Energy Finance, 12 percent in 2020 would [translate](#) to about 4 to 5 percent of a company's actual vehicle sales.

At the same time as it announced the new rules for OEMs, China announced its intention to reduce, and ultimately eliminate, the consumer subsidies for EVs. In order to [encourage](#) the development of EVs with longer ranges and greater battery pack densities, the Central Government's new policy, which just went into effect in its entirety on June 12:

- Increases subsidies on vehicles with a range per charge of 180 miles;
- Decreases significantly subsidies on EVs with a range from 90 to 180 miles; and
- Eliminates altogether subsidies for cars with a range less than 90 miles.

As part of the new program, subsidies based on range are further adjusted based on battery pack density. Battery pack densities of over 140 Wh/kg (Watt Hours Per Kilogram) receive up to 20 percent more subsidy, while battery pack densities below 120 Wh/kg receive 40 percent less. Vehicles with battery pack densities under 105 Wh/kg now receive no subsidy.

Compared to the old consumer subsidies of approximately \$10,000 per vehicle, Central Government subsidies for EVs will range from RMB 15,000 (\$2,256) to RMB 60,000 (\$9,022) per vehicle going forward, depending upon range and battery density. At this point, it is unclear whether subsidies provided by the local governments will change.

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