Bumps in the road for electric cars

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China's efforts to promote so-called clean-energy vehicles, which include hybrid as well as pure electric vehicles (EVs), are at a turning point. The most recent set of consumer subsidies have expired, and sales have slumped as manufacturers and local governments wait to see what shape new incentives will take. At the same time, various consumption models are being tested in 25 pilot cities. However, the failure to establish nationwide standards has resulted in a proliferation of what are essentially local EV fiefdoms. If the central government fails to pull down these artificial barriers at an early stage, it will face a long clean-up process ahead.

In 2010 clean-energy vehicles were listed as one of the seven key emerging industries in the 12th five-year plan (2011-15), reflecting the rising importance of curbing pollution and boosting high-technology production on the national development agenda. Soon afterwards, the State Council (China's cabinet) approved a more detailed blueprint outlining the development of the clean-energy automotive industry in 2012-20. Officials set ambitious targets for new-energy vehicle uptake: they wanted production and sales of clean energy vehicles to reach 500,000 units by 2015 and 5m by 2020.

A raft of subsidies and pilot initiatives were launched. The most recent set of subsidies, which expired in December 2012, allowed Rmb60,000 (US$9,800) in subsidies for each pure EV and Rmb50,000 for certain types of hybrid. In 2009 ten cities were chosen to launch 1,000 EVs each into operation within three years. The programme, nicknamed "ten cities, thousand vehicles", had expanded to include 25 cities by 2011.

But little progress has been made. According to a state-owned newspaper, *China Daily*, only an estimated 39,800 EVs were on the road at the end of March 2013. Around four-fifths of these vehicles were used for public transport.

Negative currents

Carmakers and local governments have been in limbo since the end of 2012; a commitment from the head of the Ministry of Industry and Information Technology, Miao Wei, that new subsidies would come out during the first half of 2013 failed to materialise.

Meanwhile, sales of clean-energy public vehicles have also taken a hit; another national plan supporting the purchase of hybrid buses expired in May 2013. In the months since, sales have suffered. National production of hybrid buses slumped in June, after a rush to complete and ship them peaked in May. According to a local automotive news site, Gasgoo, in the absence of subsidies, municipal plans to replace passenger buses with hybrid models were altered to purchase conventional buses instead.

It is most likely that agreement has not been reached on the shape the new incentives will take. Wan Gang, the minister for science and technology, warned in June 2013 that although the government was committed to clean-energy vehicles, subsidies did not represent a long-term solution to boost the industry, and makers of electric vehicles should not count on them to keep their businesses afloat. His comments probably reflect concern about evidence of overcapacity in the sector, as well as the fiscal drain of the subsidy programme.

Losing the spark

There is good reason for Mr Wan's caution about unveiling new subsidies. A study published in 2013 by a US university, Stanford, showed that the "ten cities, thousand vehicles" programme has failed to make significant progress towards its objectives. Uptake in all 25 cities has fallen far short of original targets, while some, like the eastern city of Nantong, have made almost no progress at all.

More worryingly, the pilot has encouraged city officials to mould the local sector, in areas such as battery-charging models or vehicle-leasing schemes, with an eye towards boosting local firms or attracting more financial resources to the city, rather than furthering the development of a model that can be rolled out nationally. For example, the study found that carmakers are struggling to sell EVs in other cities because large regional subsidies are offered, mostly to city taxi fleets and government agencies, for cars produced locally. Beijing, for example, has made it very difficult for BYD, a carmaker based in Shenzhen (Guangdong province), to sell its EVs in the city. Local pilot schemes are throwing up roadblocks to the central government's vision of building up a nationwide EV market.

Reports have emerged in the local media that the next round of supporting initiatives will be introduced in late September or October. New subsidy structures are anticipated, as is an expansion of the "ten cities, thousand vehicles" programme. Most industry observers expect that new policies will be reoriented towards encouraging research and development and battery infrastructure.

However, it will be difficult to encourage carmakers to scale up production—and drive down car prices—if specialised local standards and infrastructure make it difficult to roll out national standards for building EV charging facilities, and hard for manufacturers to sell in regions other than their own backyard. Clean-energy vehicles will remain prohibitively expensive, serving to dampen demand. This would in turn make it less attractive to invest in research without continued incentives. The window during which the industry can be opened up to a national market is narrow. The wrong incentives will do more harm than good.