

ELECTRIC VEHICLES

Will the pandemic put the brakes on the growing EV market?

The COVID-19 pandemic is having profound impacts on the transport sector, and road transport in particular. How are electric vehicles likely to fare during and after the crisis? Elliot Tawney takes a look.

With one third of the global population under some form of government lockdown in response to the COVID-19 pandemic, it has become obvious: We are not going anywhere fast.

Cancelled cruises, grounded flights, empty trains and deserted motorways are now commonplace after global lockdown measures confined entire countries to their homes. London Underground passenger numbers initially plummeted by 95% compared to typical pre-pandemic levels, although numbers are rising again now. Meanwhile, data from global travel analyst OAG found that the number of scheduled flights in the last week of April was down 67% compared with the same week last year.

Though passenger cars are not potential virus transmission sites in the same way that a crowded commuter train is, traffic figures have nonetheless dwindled significantly. The International Energy Agency (IEA) reported that by the end of March, global road

transport activity was almost 50% below the 2019 average. The supply side of the sector has suffered too – shuttered factories, severed supply chains and the likelihood of a recession in the coming months make it a particularly bad time to be a car manufacturer.

There are growing fears that the electric vehicle (EV) market in particular – which in 2019 enjoyed a record year of 2.2mn unit sales – may suffer dramatically in the fallout. For one thing, it is important to note that China, the first epicentre of the pandemic, is a key player not just for EV ownership (representing 45% of the global total in 2018, says the IEA), but for the global supply chain as well.

According to BloombergNEF, China was responsible for 73% of the world's lithium cell manufacturing capacity in 2019 – the crucial power technology in the EV market.

Problems with batteries

Production delays hit major Chinese battery manufacturers CATL and BYD, which were forced to delay production as the government battled the virus. Plants are slowly reopening now. But the result is a 26 GWh reduction in battery output from Chinese producers in 2020, which will create supply shortages to western carmakers leading to project cancellations, delays or cost increases.

Those consequences have already started. Ford recently confirmed it was cancelling plans for an all-electric Lincoln vehicle, whilst General Motors has delayed

the release of the updated Chevrolet Bolt – the second-most popular EV in the US in 2017 – until 2021 due to the COVID-19 emergency.

Tesla has also been affected, delaying production and deliveries of its all-electric semi-trucks until 2021, two years behind its initial schedule. However, the firm's CEO, Elon Musk, has been publicly pushing to restart its Fremont, California factory in defiance of a 'shelter in place' order imposed by the local government. Workers returned to the facility on 11 May. But there are lingering questions about how many people will actually be looking to buy a high-end EV during a pandemic, or the recession that will follow it.

In the longer term, the inevitable economic downturn will more than likely affect EV sales, according to business intelligence firm Future Market Insights. Its analysts expect sales of battery vehicles to nosedive by more than a million units this year as buyers lose confidence and disposable income. Though EV costs have fallen in recent years, the higher average price tag at the point of purchase is still putting customers off.

Similarly, the consultancy Wood Mackenzie predicts a 43% drop in global EV sales year-on-year. 'Most new EV buyers are still first-time owners of the technology. The uncertainty and fear created by the outbreak has made consumers less inclined to adopt a new technology,' said Ram Chandrasekaran, Wood Mackenzie Principal Analyst.

Tesla has re-opened production of its Fremont, California factory amid the pandemic

Photo: Tesla Motors

Oil price woes

Add to that the historic drop in oil prices, which market analysts fear will only dampen EV demand further. 'Low oil prices will lead to longer waits for the reduced fuel costs offered by EVs to amortise their higher purchase prices,' predicted Mike Vousden, Automotive Analyst at GlobalData. 'This could prove very problematic for the industry in a year that was supposed to mark the big shift to EVs.'

However, it is important to note that it isn't just EVs taking a blow – the *entire* auto industry is suffering. New car sales in March fell across Europe, with sales drops of 85% in Italy, 44% in the UK and 72% in France compared to last year. Boston Consulting Group (BCG) has forecast a 20% decline in global auto sales in 2020, with a worst-case scenario of 40%.

On the supply side, shuttered factories and lockdown orders will lead to a 21% drop in global light-duty vehicle production – a 19mn unit decline over 2019, according to London-based analysts IHS Markit.

And as Wood Mackenzie points out: 'coronavirus is an anomalous event. It may stall the electrification of the transport industry, but the direction of travel remains unchanged.' It is unlikely that

governments will defer or cancel policies designed to phase out internal combustion engine vehicles, nor will automakers forgo the \$300bn of planned global investments in EV technology over the next 5–10 years.

Furthermore, whilst demand may temporarily falter due to COVID-19, pre-pandemic EV sales were strong. Sales for February 2020 were up by 15% compared to 2019, whilst Tesla – the world's largest EV manufacturer – saw Q1 2020 sales 40% higher than Q1 2019. This could indicate market resilience and provide hopes of a faster recovery once COVID-19 passes.

Not all bad news

Wood Mackenzie also argues that record-low oil prices aren't necessarily bad news for EVs, as factors such as purchase price, charging infrastructure availability and range have a much greater impact on consumer preference. Additionally, the lower oil price is perhaps only temporary – whilst the rapid fall in battery prices looks set to continue.

There are also hopes that the rapid improvements in air quality worldwide will highlight the environmental benefits of driving electric, inspiring more drivers to purchase EVs in the future. Plus, much of the focus has been on

impacts to individual consumer demand. The business side of the EV market has been less affected, with numerous corporate fleets and public transport networks persisting with electrification to meet low carbon goals.

Amazon is still set to add 10,000 EVs to its fleet, the largest purchase of light-duty EVs in history, whilst Amply Power, a start-up specialising in fleet electrification, recently secured \$13mn in funding from Siemens and Soros Fund Management despite the pandemic.

'While consumer buying of passenger cars may suffer, it won't be the case for fleets,' said Amply Power CEO Vic Shao. 'Fleets will continue to take advantage of the situation and get better pricing... to continue to refresh their fleets with new cars.'

All in all, there are reasons for cautious optimism. Although the EV industry will undoubtedly suffer as a result of COVID-19, so too will the auto industry as a whole. And with governmental policies and corporate investments still in place, strong continued growth for EV fleets, and the hope of renewed interest from consumers, the EV wave is still likely to continue. It will just be delayed by a few, maybe quite a few, months. ●

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Ram Chandrasekaran, Wood Mackenzie

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