UK

Fuelling the drive to net zero

Last year will sadly be remembered as the year of the COVID-19 pandemic, which dramatically altered life for people around the world in 2020, and into 2021. The impacts of the pandemic can be seen clearly in the latest data from the Energy Institute's *Retail Marketing Survey* (see **Box**) – a year of lockdowns and restrictions on movement impacted the price of fuel, the volume of fuel sold, and the number of new cars being registered in 2020. However, beyond these short-term impacts, longer term trends remain unchanged, such as the growth in electric vehicle (EV) charging points and the continued closure and consolidation of retail fuel outlets.

The Energy Institute's Knowledge Service (EIKS) team has gathered a wealth of UK forecourt data and other information relevant to the fuel retailing sector, all of which is available online.*

Fuel prices and sales

The story of 2020 can be seen in changing fuel prices. From highs at the start of the year of 127.8 p/l and 132.38 p/l for petrol and diesel respectively, prices dropped sharply between March and April as the first national lockdown took effect. In May, prices reached lows of 107.73 p/l and 112.91 p/l for petrol and diesel, before gradually rising again over the course of the year.

The volume of fuel sold in 2020 was much lower than previous years (down 23% from 2019 levels) as the pandemic prevented people from travelling. Petrol and diesel deliveries to UK retail and commercial customers dropped by 21.7% and 18% respectively.

The Nissan Leaf was among the most popular plug-in EV models registered in the UK in 2019–2020

Photo: Nissan

Forecourt numbers

The number of fuel retail outlets remained steady over the last year, totalling 8,384 at the end of 2020 – a reduction of just six sites on the year before. Nevertheless, this total represents the lowest number of outlets operating in the UK since records began. As the number of EVs continues to increase, it is likely that any new or re-developed service stations will also offer charging points as well as traditional liquid fuels.

Regarding the most popular brands, BP, Esso and Shell dominate the figures, with over 1,000 branded outlets each. However, owning a high number of outlets is not necessarily the best or only metric of success; UK supermarkets continue to sell a high proportion of fuel relative to the number of sites they have. In 2020, supermarkets owned 19% of fuel outlets, but were responsible for 35% of all fuel sold. Tesco once again leads the way as the supermarket with the most service stations (over 500), followed by Morrisons, Asda and Sainsbury's (over 300 each). In October 2020, Euro Garages took over Asda in a deal worth £6.8bn. Euro Garages now has sites in Europe, the US and Australia, with annual sales of about £18bn.

Vehicle registrations

National lockdowns and regional restrictions on travel led to a big drop in the number of new vehicle registrations in the UK, with the total number of vehicles registered only rising by about 0.4%.

Of the roughly 33mn cars registered in the UK, the vast majority are powered by an internal combustion engine (ICE) and fuelled by petrol or diesel. Burning these liquid fuels produces harmful greenhouse gases (GHG) and transport was responsible for over one quarter of total GHG emissions in the UK in 2019, the most of any individual sector, according to the UK Department for Business, Energy and Industrial Strategy (BEIS). This is set to change however, as the UK government has announced a ban on the sale of new ICE-only cars and vans from 2030 (hybrid vehicles will still be allowed until 2035), in line with its commitment to achieve net zero GHG emissions by 2050.

EVs continue to make inroads

In order to achieve this net zero goal, a growing number of ultra-low emission vehicles (ULEVs) will need to find their way onto UK roads at an unprecedented pace. ULEVs are vehicles that are

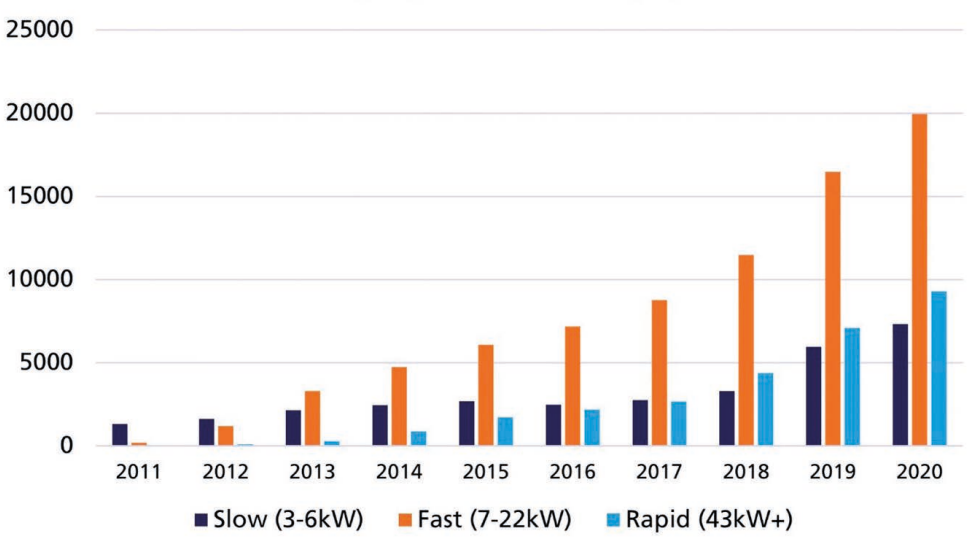

Figure 1: UK charging connectors by speed *Source: Zap-Map*

reported to emit less than 75 grammes of CO_2 from the tailpipe for every km travelled. In 3Q2020, ULEVs made up nearly 8% of total vehicle registrations in the UK, up 137% on the year before, and overtaking registrations of diesel vehicles for only the second time ever.

In the main, these ULEVs are electric – according to the UK Department for Transport (DfT), in 2019 this included over half a million hybrid EVs, and around 250,000 plug-in EVs. There has also been considerable excitement around other alternative fuels such as hydrogen. However, this option is still in the embryonic stage; there are only around 200 hydrogen fuel cell vehicles in the UK, and fewer than 20 hydrogen fuelling stations, according to UK H2Mobility.

The most popular plug-in EV models registered in 2019–2020 were the Tesla Model 3, BMW 3 series and Nissan Leaf. The popularity of the Tesla – a luxury vehicle costing over £40,000 at a minimum, according to *Autocar* – illustrates how buying an EV is still frequently the pursuit of wealthier drivers. EVs are slowly becoming more cost-competitive with petrol and diesel cars, but at present they remain out of reach for many. The UK government is offering a grant of up to £2,500 for those buying an EV costing less than £35,000, which may help to encourage uptake.

EV charging points

Despite the tough challenges of the pandemic, 2020 saw continued growth in the number of EV charging points installed in the UK. Numbers increased by 25%, reaching 36,567 charging points in total. There are now more rapid chargers (43 kW+) installed in the UK than there were total EV chargers as recently as 2014. According to Zap-Map, rapid chargers are able to charge an EV to 80% in as little as 20 minutes (depending on battery capacity). This will help to strengthen the overall charging infrastructure by reducing motorists' range anxiety and making longer journeys quicker and more convenient for EV drivers.

As part of its 10-point plan for a green industrial revolution, the UK government has pledged to invest £1.3bn in charging infrastructure, with targets of 2,500 high-powered charge points by 2030, rising to 6,000 by 2035.

Although the number of charging points has increased in every region of the UK since last year, there is a clear geographical disparity in their location. The Greater London area contains over one quarter of all EV charging points in the UK (26%), more than the regions of Yorkshire and the Humber, West Midlands, East Midlands, North East and Wales combined. This is a frustrating situation for EV owners who live outside the capital. However, there is some cause for optimism; proportionally the Midlands and Wales have seen the greatest growth, with the number of charging points more than doubling in these regions since 2018. ●

We would like to express our gratitude to Experian Catalist (**www.experian.co.uk/business/marketing/data/fuel-forecourtdata/**), who supplied most of the statistical data on UK service stations, and Zap-Map (at **www.zap-map.com**) for allowing us to use their information on numbers and types of EV charging points.

The latest edition of the *Retail Marketing Survey (RMS)* is available as part of the Energy Institute's Road Fuels Collection at **https://knowledge.energyinst.org/collections/road-fuels**

As part of this collection, you can find not only the UK fuel retail marketing statistics published since 1971, but also additional information covering the road fuels sector, from training courses to technical guidance. ●