UK

R ollowing the success of our first ever online-only version of the *Retail Marketing Survey* (*RMS*), unveiled in April 2019, the latest edition is now available as part of the EI Road Fuels Collection at https://knowledge.energyinst. org/collections/road-fuels

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

Changing lanes

Fuel retailing has changed significantly over the past 50 years, with a significant consolidation of retailers and entirely new road fuels emerging.

The most significant road fuelling development since the start of the 21st Century is the increase in the number of electric vehicles (EVs) on our roads - from virtually none in 2000 to around 300,000 currently in the UK. These figures include pure battery powered vehicles (BEVs) and plugin hybrids (PHEVs). Despite this rapid growth, the transition from petrol and diesel vehicles has not yet reached its tipping point in this country, with around 39mn internal combustion vehicles of all types still on the UK roads.

A rapid installation of charging points is one of two main factors to enable the success of BEVs, the other is the rapid advance in battery technology in recent years. There has been a significant increase in the number of EV charging points in the UK recently – up from 19,909 to 29,492 in 2019 alone. Comprehensive details regarding the types of charger and locations of charging points can be found on the Zap-Map website.

However, EVs are still considerably more expensive to buy than petrol and diesel-fuelled equivalents, costing around £10,000 more than a similar-sized petrol or diesel car. Reducing this differential is the UK government's 'plug-in' vehicle grant of £3,500, as well as the lower costs of recharging an EV battery compared with refuelling. Regarding range, a driver would like to be able to drive their petrol or diesel car from London to most places in England on a single tank fill. Most EVs are restricted to far fewer miles on a single charge, with the longestranged models, given a full slow charge, limited to around 250 miles. That said, new mid-sized

New fuels on the rise

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.

models are now coming onto the market that have advertised ranges of up to 340 miles.

Battery life, or the number of charge cycles a battery can sustain before its performance degrades noticeably, remains one of the main factors in car buyers' decision-making around EVs, alongside vehicle range and cost. To alleviate concerns around the longevity of batteries, manufacturers have recently begun giving up to 125,000-mile battery life guarantees.

Alongside the advances being made in EV technologies, market expansion will require parallel advances in electricity generation and distribution. To generate the electricity to make 50%, and eventually nearly 100% of the UK car fleet electric, the country will need to take advantage of smart charging and other flexible demand technologies, as well as upgrades to the grid and increased power generation capacity.

Innovations in all areas of the EV market indicate a significant swing in that direction over the coming decade, but the fuelling station and vehicle numbers suggest that petrol and diesel engines will probably be with us for years to come.

Meanwhile, also beginning to make an appearance are hydrogen fuel cell vehicles, which, although few in number on UK roads at present, are set to add to the fuel mix in both public and private transport. A remaining roadblock for hydrogen, despite its known potential for use as a low carbon fuel for several decades, has been the low number of refuelling facilities, with only 16 in the UK. The number is growing, however, with more significant numbers elsewhere in western Europe, Japan, South Korea, and the western US (see pp34–36).

Looking at the numbers

Consolidation of the UK fuel retail market started off rapidly around 40 years ago, with large reductions in the number of service station sites across the nation. However, it has slowed in recent years. Some



6,040 sites closed in the 1990s and 4,703 in the 2000s, while the 2010s witnessed the closure of 623 sites. In contrast, over the same period, the number of road vehicles has increased considerably; from around 29mn to almost 39mn.

This simultaneous decrease in fuel retail outlets and rise in vehicle numbers has partly been driven by much improved fuel efficiency, following growing environmental concerns over the impact of road vehicles on air quality and greenhouse gas (GHG) emissions.

Over the same period, the supermarket sector has made huge inroads into the market, taking a dominant position in road fuel sales by the beginning of this century. This has led to a change in fuel purchasing habits, with drivers combining a weekly shop

Motorists are increasingly moving from traditional petrol and diesel fuels to electric vehicles; however, concerns remain regarding charging times, range and cost with filling up their vehicles, giving supermarkets a ready customer base. From this favourable position, supermarkets have been able to introduce customer incentives which favoured the new fuel purchasing patterns.

These changing purchasing habits were an additional driver of fuelling station consolidation. In the 1990s, especially the latter half, margins on fuel sales were small. While retailers were beginning to diversify into more varied convenience stores and in-store food outlets, they were at a disadvantage and unable to attract the custom that was drawn to supermarkets. Many smaller fuel retailers, both independents or those selling major brands, were unable to compete over the long term and either shut down of their own accord or were closed by the majors.

Looking at this year's fuelling station numbers, once again BP heads the table, with the largest number of sites – 1,223 against 1,231 last year. Esso is slightly behind, with 1,218 branded sites, up from 1,184 last year, and Shell, in third place with 1,085 outlets, is also up from 1,053 sites last year. Tesco, as usual, leads the supermarket table, with 509 forecourts, up from 507. Morrisons and Sainsbury have 335 and 315, respectively and Asda 324. Minor supermarkets and the Co-op, with 97, add another 126 sites, giving a total for supermarkets of 1,609 fuel retail outlets (up from 1,603 in 2018).

The main supermarkets continue to feature strongly in terms of throughput, taking 35.57% of total fuel sales.

In addition to the major retailing brands which dominate the market in terms of site numbers, there are still a good number of unbranded and smallbrand sites, with 613 falling under the Unbranded/Other category and some 150 in total for smaller brands.

The statistics suggest that a balance has been reached in the number of fuel retail outlets, at least for the time being. However, this temporary stasis is likely to change in the coming decades with the continued roll-out of EVs, as electric charging stations are not reliant on centralised fuelling sites and charging habits are, for the most part, quite different from fuelling patterns.

Fuel prices

The current steep drop in the oil price will likely be reflected in prices at the pump as 2020

progresses. But throughout 2019, the relatively stable oil price meant that unleaded petrol averaged 125.81 p/l through the year, only fracitionally down on 2018. It reached a high of 129.43 p/l in May and ended the year on 125.75 p/l. Diesel started 2019 on 129.25 p/l and ended on 129.91 p/l, with an average price of 131.29 p/l. Duty remained frozen across all fuels throughout the year.

Deliveries

Total petrol sales have remained fairly stable recently, with 12.2mn tonnes sold in 2019. Although a heavy drop from 2010, when petrol deliveries reached 15.5mn tonnes, this has been offset by a significant increase in diesel sales, which rose from 20.6mn tonnes in 2010 to 25.4mn in 2019. As a result, total fuel sales, diesel and petrol, retail and commercial, have remained fairly steady during this period, going from 36.1mn to 37.6mn tonnes.

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. Without the help of both these organisations, this survey would not have been possible.

The Blue Book

Design, construction, modification, maintenance and decommissioning of filling stations

Essential reading for all those involved in the design, construction, modification, maintenance and decommissioning of facilities for the storage and dispensing of vehicle fuels at either retail or commercial premises, as well as those involved in the enforcement of regulations applicable to such sites.

Jointly published with the Association for Petroleum and Explosives Administration (APEA).

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