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April 2018

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Supply and Distribution: Organisation, Operations and Economics

This 4-day course is designed for those who are or will be operating in the supply & distribution functions and will provide the background knowledge to allow them to take the right decisions on how to supply the network at the right cost.

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Fuel retailers as at 31.12.2017

Brand Name	Total no. of retail fuel outlets displaying brand name (<i>total last year</i>)	Total no. of company owned sites included	Company	Area(s) of operation
BP	1,292 (1,278)	327	BP Oil UK, Witan Gate House, 500–600 Witan Gate, Central Milton Keynes, MK9 1ES t: +44 (0)1908 853000	UK
ESSO	1,093 (1,081)	200	Esso Petroleum Company, Retail –UK, Mail Point 22, ExxonMobil House, Ermyrn Way, Leatherhead, Surrey, KT22 8UX t: +44(0)1372 222261	UK, Channel Islands
SHELL	1,042 (1,029)	529	Shell UK Oil Products, Shell Centre, London, SE1 7NA t: +44 (0)20 7934 1234	UK
TEXACO	739 (768)	5	Valero Energy, 1 Westferry Circus, Canary Wharf, London, E14 4HA t: +44 (0)20 7513 3000	England, Wales, Northern Ireland
GULF	479 (503)	10	Certas Energy, Tryst House, Glenbervie Business Park, Larbert, FK5 4RB t: +44 (0)1324 408049	England, Wales, Scotland
JET	331 (337)	–	Phillips66, 7th Floor, 200–202 Aldersgate Street, London, EC1A 4HD t: +44 (0)1926 404333	England, Wales, Scotland
MURCO	193 (192)	–	Motor Fuels Group, Motor Fuel Ltd, Building 2, Abbey View, Everard Close, St Albans, Hertfordshire, AL1 2QU t: +44 (0)1727 898890	England, Wales, Scotland
PACE	161 (177)	–	Certas Energy, Tryst House, Glenbervie Business Park, Larbert, FK5 4RB t: +44 (0)1324 408049	England, Wales, Scotland
SCOTTISH FUELS/ POWER/PROTEUS/ SCOTTISH ISLAND FUELS/ CARLTON/IMPERIAL/ EMO/BUTLER/OTHER	114 (126)	–	Certas Energy, Tryst House, Glenbervie Business Park, Larbert, FK5 4RB t: +44 (0)1324 408049	Scotland
MAXOL	96 (95)	30	Maxol Oil, 48 Trench Road, Mallusk Newtownabbey, County Antrim, BT3 9DE t: +44 (0)28 9050 6000	Northern Ireland
APPLEGREEN	85 (76)	85	Applegreen, Office 3, The Limes, Dunstable Street, Ampthill, Bedfordshire, MK45 2GJ t: +44 (1)525 409921	England, Wales, Northern Ireland

Fuel retailers cont'd

Brand Name	Total no. of retail fuel outlets displaying brand name (total last year)	Total no. of company owned sites included	Company	Area(s) of operation
HARVEST ENERGY	76 (95)	11	Harvest Energy, Prax House, Horizon Business Village, 1 Brooklands Road, Weybridge, Surrey, KT13 0TJ t: +44 (0)1932 843354	England, Scotland
SOLO	60 (60)	7	Solo Petroleum, 9a Clare Lane, Cookstown, County Tyrone, BT80 8RJ t: +44 (0)28 8676 2447	Northern Ireland
GLEANER	59 (60)	9	Gleaner Oils, Milnfield, Elgin, Scotland, IV30 1UZ t: +44 (0)1343 557400	Scotland
TOPAZ	48 (48)	–	Topaz Energy Group, Topaz House, Beech Hill, Clonskeagh, Dublin 4, Ireland t: +353 (0)1 202 8888	Northern Ireland
ESSAR	47 (23)	–	Essar Oil, 57 Berkeley Square, London, W1J 6ER t: +44 (0)20 7408 8700	England, Wales
STAR	37 (37)	8	Nicholl Fuel Oils, 176 Clooney Road, Eglington, BT47 3DY t: +44 (0)7771 886283	Northern Ireland
UK	34 (36)	1	Certas Energy, Tryst House, Glenbervie Business Park, Larbert, FK5 4RB t: +44 (0)1925 858528	England, Wales
RIX	33 (36)	–	Rix Petroleum, Witham House, 45 Spyvee Street, Hull, HU8 7JR t: +44 (0)1482 224422	Scotland, Northern England
THAMES	29 (34)	–	Thames Petroleum (Scotland), 14 Newton Place, Glasgow, G3 7PY t: +44 (0)141 332 7355	Scotland, Northern England
GO	18 (18)	–	LCC Oil, 16 Churchtown Road, Cookstown, County Tyrone, BT80 9XD t: +(0)28 8676 5588	Northern Ireland
OIL4WALES/OLEW DROS GYMRU	17 (18)	–	Oil4Wales, Coaster Place, Rover Way, Cardiff, CF10 4XZ t: +44 (0)2920 674910	Wales

Fuel retailers cont'd

Brand Name	Total no. of retail fuel outlets displaying brand name (total last year)	Total no. of company owned sites included	Company	Area(s) of operation
LOCAL FUELS	12 (14)	12	Pricewatch (trading as Local Fuels), Shortgate Industrial Park, The Broyle, Ringmer, Lewes, BN8 6PH t: +44 (0)1825 840931	Sussex
DRAGON	11 (11)	—	NWF Fuels, Wardle, Nantwich, Cheshire, CW5 6AF t: +44 (0)1829 260900	Wales
EVF	11 (11)	8	Ellan Vannin Fuels, Sovereign House, Station Road, St Johns, Isle of Man, IM4 3AJ t: +44 (0)1624 844000	Isle of Man
BWOC	10 (12)	1	BWOC, BW Estates, Oldmixon Crescent, Weston-Super-Mare, Somerset, BS24 9BA t: +44 (0)1934 417576	West of England
HIGHLAND FUELS	8 (8)	1	Highland Fuels, Affric House, Beechwood Park, Inverness, IV2 3BW t: +44 (0)1463 220223	Scotland
MANX	8 (8)	—	Manx Petroleum, PO Box 47, Battery Pier, Douglas, Isle of Man, IM99 1DE t: +44 (0)1624 691691	Isle of Man
NWF	7 (7)	—	NWF Fuels, Wardle, Nantwich, Cheshire, CW5 6AL t: +44 (0)1829 260900	England
OAK PETROLEUM	7 (6)	—	Oakley's Fuel Oils, Halesfield 19, Telford, Shropshire, TF7 4QT t: +(0)1952 684600	England, Wales
HELTOR	6 (6)	—	Heltor, Old Newton Road, Heathfield, Newton Abbott, Devon, TQ12 6RW t: +44 (0)1626 832357	Devon, Cornwall
FLARE	5 (6)	—	Heltor, Old Newton Road, Heathfield, Newton Abbott, Devon, TQ12 6RW t: +44 (0)1626 832357	England
Total above	6,168 (6,216)	1,277		
UNBRANDED **/OTHER	703 (710)	24	*	UK

**Figures supplied for 'Unbranded/Other' category in this and subsequent tables have been taken from a survey carried out by, and published with permission of, Experian Catalist www.catalist.com

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Supermarkets

Brand Name	Total no. of retail fuel outlets displaying brand name (total last year)	Total no. of company owned sites included	Company	Area(s) of operation
TESCO	505 (504)	504	Tesco House, Kestrel Way, Shire Park, Welwyn Garden City, Hertfordshire, AL7 1GA t: +44 (0)800 505 555	UK
MORRISONS	333 (333)	333	Wm Morrison Supermarkets, Hilmore House, Gain Lane, Bradford, BD3 7DL t: +44 (0)845 611 5000	England, Wales, Scotland
ASDA	318 (304)	318	Asda Stores, Petrol Trading Dept, Asda House, Great Wilson Street, Leeds, LS11 5AD t: +44 (0)113 243 5435	UK
SAINSBURY'S	311 (306)	311	Sainsbury's Supermarkets, 33 Holborn, London, EC1N 2HT t: +44 (0)20 7695 6774	UK
CO-OP	71 (43)	71	The Co-operative Group, 1 Angel Square, Noma, Manchester, M60 0AG t: +44 (0)161 827 5528	UK
OTHER SUPERMARKETS (CENTRA, MACE, SPAR, COSTCUTTER, DAY TODAY, EUROSPAR, NISA, XL STOP & SHOP and VIVO)	33 (33)	–		UK
TOTAL	1,571 (1,523)	1,537		



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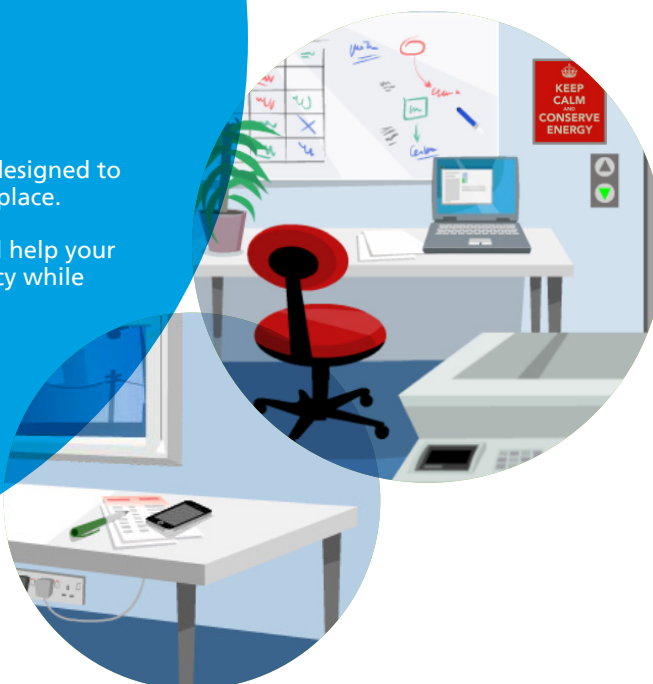
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Number of service stations in the UK

Figures are as counted on 31 December each relevant year

Year end	Total number of service stations	% change from previous entry
2017	8,442	-0.35
2016	8,489	-1.39
2015	8,472	-1.59
2014	8,609	-0.02
2013	8,611	-0.94
2012	8,693	2.51
2011	8,480	-4.63
2010	8,892	-1.34
2009	9,013	-2.91
2008	9,283	0.13
2007	9,271	-1.18
2006	9,382	-3.91
2005	9,764	-5.67
2004	10,351	-1.75
2003	10,535	-7.77
2002	11,423	-6.38
2001	12,201	-6.46
2000	13,043	-4.91
1999	13,716	-0.31
1998	13,758	-7.19
1997	14,824	0.52
1996	14,748	-9.21
1995	16,244	-4.28
1994	16,971	-5.55
1993	17,969	-3.13
1992	18,549	-3.63
1991	19,247	-1.12
1990	19,465	-1.47
1989	19,756	-1.30
1988	20,016	-0.90
1987	20,197	-2.15
1986	20,641	-2.82
1985	21,240	-3.59
1984	22,032	-4.61
1983	23,097	-4.19
1982	24,108	-2.63
1981	24,760	-3.00
1980	25,527	-3.60
1979	26,480	-6.41
1978	28,295	-4.89
1977	29,751	-2.08
1976	30,383	-3.32
1975	31,426	-3.78
1974	32,662	-0.95
1973	32,974	-4.74
1972	34,613	-3.71
1971	35,948	-4.24
1970	37,539	0.02
1969	37,531	-1.70
1968	38,180	-4.45
1964 Approx	39,000	5.41
1960 Approx	37,000	8.82
1953 Approx	34,000	13.23
1945 Fewer than	30,000	-14.29

Note: The apparent increase in 1997 is due to a revised method of collecting data which allowed approximately 900 unbranded/minor operators to be included from 1997 onwards. The 2012 figure is a slight rise on the number reported for end-2011. However, it does not represent an increase in the UK network as a major reorganisation of the market occurred during the reporting period, which led to some undercounting for the year 2011

Number of vehicles registered

Figures are as counted on 31 December each relevant year

Year	Total number of vehicles registered	Number of vehicles per service station
2017	37,500,000	4,442
2016	36,500,000	4,300
2015	35,931,000	4,241
2014	35,898,000	4,170
2013	35,212,000	4,089
2012	34,712,000	3,993
2011	34,668,000	4,088
2010	34,120,000	3,837
2009	33,958,000	3,768
2008	33,883,000	3,650
2007	33,651,000	3,630
2006	33,107,000	3,529
2005	32,897,000	3,369
2004	31,971,000	3,089
2003	31,207,000	2,962
2002	30,557,000	2,675
2001	29,747,000	2,438
2000	28,897,000	2,216
1999	28,368,000	2,068
1998	27,538,000	2,002
1997	26,974,000	1,820
1996	26,302,000	1,783
1995	25,369,000	1,562
1994	24,826,000	1,463
1993	24,577,000	1,368
1992	24,851,000	1,340
1991	24,511,000	1,273
1990	24,672,000	1,268
1989	24,196,000	1,225
1988	23,301,000	1,164
1987	22,152,000	1,097
1986	21,699,000	1,051
1985	21,159,000	996
1984	20,765,000	942
1983	20,209,000	875
1982	19,762,000	820
1981	19,347,000	781
1980	19,199,000	752
1979	18,616,000	703
1978	17,758,000	628
1977	17,345,000	583
1976	17,318,000	570
1975	16,511,000	525
1974	15,642,000	479
1973	15,427,000	468
1972	14,584,000	421
1971	14,030,000	390
1970	13,548,000	361
1969	13,362,000	356
1968	13,082,000	343
1964	11,176,000	287
1960	8,512,000	230
1953	4,809,000	141
1945	3,107,000	104
1938	3,148,000	90
1920	591,000	—
1909	143,000	—

Source: Department for Transport, vehicles statistics

Regional breakdown of fuel retail outlets

Brand Name	England % of area total		Wales % of area total		Scotland % of area total		Northern Ireland % of area total		Channel Islands*		Isle of Man % of area total		Isle of Wight % of area total		TOTAL UK
BP	1,116	17.2	20	3.8	112	13.4	44	8.0	–	–	–	–	–	–	1,292
Esso	938	14.4	54	10.4	93	11.2	–	–	5	100	–	–	3	20.0	1,093
Shell	923	14.2	41	7.9	78	9.4	–	–	–	–	–	–	–	–	1,042
Texaco	602	9.3	110	21.2	–	–	27	4.9	–	–	–	–	–	–	739
Tesco	382	5.9	43	8.3	60	7.2	19	3.5	–	–	–	–	1	6.7	505
Gulf	351	5.4	41	7.9	81	9.7	–	–	–	–	–	–	6	40	479
Jet	290	4.5	2	0.4	39	4.7	–	–	–	–	–	–	–	–	331
Sainsbury's	268	4.1	9	1.7	24	2.9	9	1.6	–	–	–	–	1	6.7	311
Morrisons	261	4.0	23	4.4	47	5.6	–	–	–	–	–	–	2	13.3	333
Asda	227	3.5	26	5.0	55	6.6	10	1.8	–	–	–	–	–	–	318
Murco	154	2.4	38	7.3	1	0.1	–	–	–	–	–	–	–	–	193
Pace	145	2.2	5	1.0	11	1.3	–	–	–	–	–	–	–	–	161
Harvest Energy	75	1.2	–	–	1	0.1	–	–	–	–	–	–	–	–	76
Co-op	71	1.1	–	–	–	–	–	–	–	–	–	–	–	–	71
Applegreen	70	1.1	10	1.9	–	–	5	0.9	–	–	–	–	–	–	85
Scottish Fuels, Power, Proteus, Scottish Island Fuels, Carlton, Imperial, Emo, Butler, Other	61	0.9	5	1.0	30	3.6	18	3.3	–	–	–	–	–	–	114
Essar	41	0.6	6	1.2	–	–	–	–	–	–	–	–	–	–	47
UK	32	0.5	1	0.2	1	0.1	–	–	–	–	–	–	–	–	34
Rix	31	0.5	1	0.2	1	0.1	–	–	–	–	–	–	–	–	33
Local Fuels	12	0.2	–	–	–	–	–	–	–	–	–	–	–	–	12
WCF	22	0.3	–	–	–	–	–	–	–	–	–	–	–	–	22
Local Fuels	14	0.2	–	–	–	–	–	–	–	–	–	–	–	–	14
Other supermarkets (Centra, Mace, Spar, Costcutter, Day Today, Eurospar, Nisa, XL Stop & Shop and Vivo)	11	0.2	3	0.6	1	0.1	18	3.3	–	–	–	–	–	–	33
BWOC	10	0.2	–	–	–	–	–	–	–	–	–	–	–	–	12
NWF	7	0.1	–	–	–	–	–	–	–	–	–	–	–	–	7
Heltor	6	0.1	–	–	–	–	–	–	–	–	–	–	–	–	6
Flare	5	0.1	–	–	–	–	–	–	–	–	–	–	–	–	5
Oak Petroleum	1	–	6	1.2	–	–	–	–	–	–	–	–	–	–	7
Thames	–	–	–	–	29	3.5	–	–	–	–	–	–	–	–	29
Dragon	–	–	11	2.1	–	–	–	–	–	–	–	–	–	–	11
Maxol	–	–	–	–	–	–	96	17.5	–	–	–	–	–	–	96
Gleaner	–	–	–	–	59	7.1	–	–	–	–	–	–	–	–	59
Highland Fuels	–	–	–	–	8	1.0	–	–	–	–	–	–	–	–	8
Solo	–	–	–	–	2	0.2	58	10.6	–	–	–	–	–	–	60
Star	–	–	–	–	–	–	37	6.7	–	–	–	–	–	–	37
Oil4Wales/Olew Dros Gymru	–	–	17	3.3	–	–	–	–	–	–	–	–	–	–	17
Manx	–	–	–	–	–	–	–	–	–	–	8	34.8	–	–	8
Topaz	–	–	–	–	–	–	48	8.7	–	–	–	–	–	–	48
EVF	–	–	–	–	–	–	–	–	–	–	11	47.8	–	–	11
Go	–	–	–	–	–	–	18	3.3	–	–	–	–	–	–	18
Unbranded/Other	407	6.3	48	9.2	100	12.0	142	25.9	–	–	4	17.4	2	13.3	703
Total	6,497		520		833		549		5		23		15		8,442

* In addition to the Esso sites, are there reported to be a total of 21 fuel outlets in the Channel Islands. Channel Island Fuels operates 10 of these in Guernsey. Percentage figures are to the nearest 0.5

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Contact:

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UK fuel retail sites

Year-end	Total	Self-service	% of total	Company-owned	% of total	Average site fuel thru-put (tonnes)	Of which petrol thru-put (tonnes)	Average site fuel thru-put (litres)	Of which petrol thru-put (litres)	Annual total fuel (tonnes)	Annual total petrol (tonnes)
2017	8,442	—	—	1,277	13.6	—	—	—	—	—	—
2016	8,489	—	—	2,596	30.6	—	—	—	—	—	—
2015	8,472	—	—	2,590	30.6	3,362	1,509	4,482,039	2,010,986	28,486,000	12,781,000
2014	8,609	—	—	3,025	35.1	3,219	1,459	4,291,334	1,944,765	27,715,000	12,560,000
2013	8,611	—	—	2,808	32.6	3,181	1,460	4,240,801	1,945,861	27,395,000	12,570,000
2012*	8,693	—	—	2,983	34.3	3,131	1,524	4,173,196	2,031,778	27,215,000	13,250,000
2011	8,480	8,278	97.6	3,526	41.6	3,275	1,634	4,365,064	2,178,418	27,768,748	13,858,205
2010	8,892	8,486	95.4	3,493	39.3	3,165	1,697	4,218,918	2,261,693	28,143,000	15,087,000
2009	9,013	8,539	94.7	3,538	39.3	3,119	1,749	4,158,138	2,331,160	28,115,000	15,762,000
2008	9,283	8,891	95.8	2,996	32.3	3,183	1,797	4,243,113	2,395,035	29,549,000	16,679,000
2007	9,271	8,884	95.8	3,460	37.3	3,189	1,863	4,251,193	2,483,685	29,567,000	17,274,000
2006	9,382	9,022	96.2	3,497	37.3	3,062	1,859	4,081,904	2,478,169	28,729,499	17,442,000
2005	9,762	9,531	97.6	3,621	37.1	2,974	1,834	3,963,811	2,444,653	29,028,301	17,903,000
2004	10,351	8,853	85.5	3,942	38.1	2,725	1,805	3,632,077	2,405,478	28,203,771	18,679,000
2003	10,535	7,829	74.3	4,353	41.3	2,590	1,773	3,451,880	2,363,465	27,280,985	19,335,000

* Estimated. The 2012 figure is a slight rise on the number reported for end-2011. However, it does not represent an increase in the UK network as a major reorganisation of the market occurred during the reporting period (the acquisition of the Total retail network and fuel distribution business by Rontec and subsequent sale of a number of sites to Shell, GB Oils and others) led to some undercounting for the year 2011.

Note: The fuel consumption figures supplied by the Department for Business, Energy & Industrial Strategy are no longer separated into retail and commercial statistics. As a result, we have been unable to provide any throughput breakdowns for 2016 onwards in the table.

Market share by ownership

Ownership	Open sites	Avg motor fuel	Outlet share	Market share	Market effectiveness
Hypermarket	1,537	10,366	18%	46%	2.57
Dealer	5,628	2,419	67%	38%	0.56
Company	1,277	4,995	15%	16%	1.22
Total	8,442	4,203	100%	100%	1.00

Definitions

Company – owned by the supplying oil company whose name appears on the brand sign

Dealer – an independently-owned site usually supplied under an agreement with an oil company whose name usually appears on the brand sign. Also includes unbranded sites with no oil company identification

Hypermarket – owned and operated by the multiple retailers (hypermarket groups). Also includes sites that may be away from the main hypermarket store but are owned and branded by the hypermarket

Market effectiveness – Market effectiveness is the relationship of market share to outlet share (the higher the number above 1.0 the more effective the brand – you get more market share per site than the average in the market)

*Figures supplied by Experian Catalyst. These figures differ slightly from RMS statistics due to different data collection methods

Fuel sales through supermarkets

	2016 ^r	2017 ^p
Total petrol sales^p	5,885,000	5,719,000
% of UK petrol sales	46.86	44.75
Diesel	7,267,000	7,298,000
% of UK diesel sales	47.95	46.41
Total supermarket fuel sales	13,152,000	13,017,000
% of UK total fuel sales	47.45	45.70
Percentage of supermarket sites	17.94	18.61

^p – Provisional figure; ^r – revised figure

Source: BEIS

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ENERGY INSTITUTE

Promoting good practice

The Energy Institute's Service Station Panel continues to develop guidance reflecting good industry practice for the fuel retail sector, both in the UK and internationally.

The guidance produced by the Energy Institute's Service Station Panel (SSP) enables fuel retailers to follow a consistent approach to any works on the forecourt and to ensure safety.

Big changes are happening in this sector. The UK government has proposed that all new cars sold in the UK from 2040 will have zero emissions from the tailpipe. The government is seeking to require the provision of electric charging points at forecourts through the introduction of the Automated and Electric Vehicles Bill currently passing through parliament. The SSP is discussing what this change means for industry and is working in association with other professional bodies with the aim of producing guidance on co-locating chargers on forecourts.

Current activity

There are many aspects to consider when storing petroleum spirit and other petroleum products at service stations. Due to the close interaction with the public, and the hazardous nature of the products, it is important that the necessary controls are in place so that products such as petrol, diesel and alternative fuels are stored, transferred and handled appropriately.

In 2017, the SSP produced three publications, including:

- *Guidance for the storage and handling of biofuel at filling stations.* Guidance for filling station operators on the introduction of E5, E10 and B7 to meet requirements of EN 228 and EN 590.
- *Guidance on environmental management at filling stations.* A reference guide for individuals charged with environmental protection at filling stations; focusing on assessing and managing the risk associated with a loss of fuel at a site.
- *Guidance on inspection and testing of safety critical*

equipment on retail filling stations. An indication of levels of inspection and testing needed to provide assurance that equipment and systems remain in a condition which meets the system design intent and legal requirements.

Blue Book update

The SSP's main reference document - *Design, construction, modification, maintenance and decommissioning of petrol filling stations* (also known as the 'Blue Book') – was also updated in 2017, and is due to be published shortly. This is a joint publication by the EI and APEA.

The updates reflect changes in technology, legislation and industry intent since publication of the last edition in 2011. The guidance focuses on recommendations for best practice in safety and environmental protection. There are now requirements for tanks and pipes which make up retail fuel systems, to be designed to ensure early detection of any failure and prevent loss to the environment. Double walls for tanks, fill pipes and pressure fuel pipes are now established as minimum requirements for newbuild sites. At higher risk locations, these systems have to be monitored by Class 1 leak detection systems which are designed to provide an alarm before any loss from containment occurs and are fail safe.

The guidance also incorporates a fundamental rethink of hazardous areas on filling stations to address the increasing use of portable electrical devices by staff, contractors and the public. The fixed blanket hazardous areas of the past are now replaced with a layered approach, taking account of the operations during which flammable vapour is likely to be present. The contribution of diesel products to hazardous areas is also considered and incorporated in typical case diagrams.

This highly regarded, internationally used, guidance is of

interest to those involved in the design, construction, modification, maintenance and decommissioning of facilities for the storage and dispensing of vehicle fuels, as well as those involved with the enforcement of regulations applicable to such sites.

Future work

Other publications by the SSP to look out for in 2018, include:

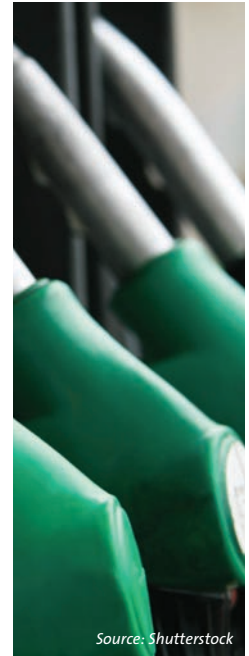
- *Guidance on management of environmental risks associated with land contamination at filling stations*
- *Guidance on the use of mobile phones and other portable electrical devices at filling stations*
- *Code of safe practice for contractors and retailers managing contractors working on filling stations (2nd edition)*
- *Poster: Fuel spillage – Incident action plan*

The SSP provides a platform for engineering/operating experts and trade associations to discuss issues relating to the design, construction, modification, maintenance, decommissioning and operation of filling stations and associated equipment. ●

None of the work discussed in this article would be possible without the participation of our members and the EI is appreciative of their efforts.

Members gain considerably from taking part in committee activities, keeping up-to-date with developments and networking with their peers. New members are always welcome.

If your or your company are interested in becoming an active contributor of the SSP, please contact Kerry Sinclair, e: ksinclair@energyinst.org



Source: Shutterstock

Average UK prices for petrol and derv per litre

Monthly prices supplied by Experian Catalist. *Duty and VAT included in this figure.

	Unleaded (ULSP)				Derv (ULSD)				LPG		
	*Pence	Duty	Tax as % of price		*Pence	Duty	Tax as % of price		*Pence	Duty	Tax as % of price
2017											
January	119.31	57.95	65.24		121.86	57.95	64.22		59.48	15.80	43.23
February	120.26	57.95	64.85		122.49	57.95	63.98		60.50	15.80	42.78
March	119.41	57.95	65.20		121.53	57.95	64.35		60.11	15.80	42.95
April	118.48	57.95	65.58		120.28	57.95	64.85		59.84	15.80	43.07
May	116.97	57.95	66.21		118.25	57.95	65.67		59.57	15.80	43.19
June	116.05	57.95	66.60		117.03	57.95	66.18		59.08	15.80	43.41
July	114.80	57.95	67.15		115.65	57.95	66.77		58.15	15.80	43.84
August	116.56	57.95	66.38		117.57	57.95	65.96		58.18	15.80	43.82
September	119.41	57.95	65.20		120.23	57.95	64.87		59.87	15.80	43.06
October	118.23	57.95	65.68		120.51	57.95	64.75		60.32	15.80	42.86
November	120.27	57.95	64.85		122.75	57.95	63.88		60.97	15.80	42.58
December	120.87	57.95	64.61		123.39	57.95	63.63		62.75	15.80	41.85
Year avg	118.39	57.95	65.63		120.13	57.95	64.93		59.90	15.80	43.05
2016											
January	102.62	57.95	73.14		103.18	57.95	72.83		56.62	15.80	44.57
February	102.19	57.95	73.37		101.35	57.95	73.84		56.25	15.80	44.76
March	103.29	57.95	72.77		103.52	57.95	72.65		55.69	15.80	45.04
April	107.08	57.95	70.79		106.70	57.95	70.98		54.67	15.80	45.57
May	109.52	57.95	69.58		109.50	57.95	69.59		54.39	15.80	45.72
June	111.71	57.95	68.54		111.89	57.95	68.46		54.54	15.80	45.64
July	112.27	57.95	68.28		112.79	57.95	68.05		55.73	15.80	45.02
August	110.61	57.95	69.06		111.70	57.95	68.55		56.43	15.80	44.67
September	112.00	57.95	68.41		113.24	57.95	67.84		55.90	15.80	44.93
October	114.81	57.95	67.14		116.46	57.95	66.43		56.07	15.80	44.85
November	115.85	57.95	66.69		117.90	57.95	65.82		57.44	15.80	44.17
December	115.44	57.95	66.87		117.98	57.95	65.79		57.75	15.80	44.03
Year avg	109.78	57.95	69.55		110.52	57.95	69.23		55.96	15.80	44.91

Average UK commodity and wholesale prices for petrol and diesel

	Petrol			Diesel			Oil
Date	Commodity (\$/tonne)	Wholesale (pence/litre)		Commodity (\$/tonne)	Wholesale (pence/litre)		\$/barrel
2017							
January	554.1	34.7		494.0	35.6		54.7
February	567.3	35.2		502.5	35.6		55.1
March	529.5	33.2		472.5	34.0		51.6
April	565.5	34.3		487.5	34.0		52.5
May	540.4	32.4		462.1	31.7		50.4
June	513.2	31.2		432.5	30.1		46.6
July	526.2	31.5		461.2	31.6		48.6
August	564.0	33.7		487.9	33.4		51.6
September	589.8	34.1		536.5	35.5		56.1
October	571.9	33.1		538.2	36.0		57.4
November	629.3	36.2		566.9	37.7		62.6
December	613.6	34.9		575.8	37.5		64.2
Year avg	563.73	33.72		501.46	34.4		54.28
2016							
January	404.7	22.3		293.1	18.9		30.8
February	366.4	20.3		310.5	19.9		32.5
March	432.8	23.5		362.3	22.9		38.4
April	499.5	26.8		378.7	23.8		41.5
May	523.6	28.0		432.7	26.5		46.9
June	525.4	28.7		452.5	28.2		48.3
July	460.4	27.3		411.2	27.8		45.1
August	473.3	27.9		416.7	28.5		45.8
September	486.5	28.5		426.2	29.1		46.7
October	517.3	32.2		470.9	34.3		49.7
November	469.8	29.1		434.5	31.4		45.1
December	533.0	32.8		492.4	35.1		53.6
Year avg	474.38	27.28		406.82	27.20		43.70

Source: fuelpricesonline.com

Petrol and derv deliveries to retail and commercial customers (tonnes)

Category and Grade (BSI rating)	2008	2009	2010	2011	2012	2013	2014	2015 ^r	2016 ^p	2017 ^p	% chg 07–16
Retail											
Unleaded – Super/4 Star (LRP from 2000)	714,000	707,000	708,000	472,637	448,000	412,000	411,000	577,000	–	–	–
Unleaded – Premium (ULSP from 2001)	15,361,000	14,592,000	14,379,000	13,386,568	12,802,000	12,574,000	12,149,000	12,204,000	–	–	–
Total Petrol	16,075,000	15,299,000	15,087,000	13,859,205	13,250,000	12,986,000	12,560,000	12,781,000	–	–	–
Derv fuel	12,870,000	12,653,000	13,056,000	13,909,543	13,965,000	14,088,000	15,155,000	15,724,000	–	–	–
Total retail motor	28,945,000	27,952,000	28,143,000	27,768,748	27,215,000	27,074,000	27,715,000	28,486,000	–	–	–
Commercial Consumers											
Unleaded – Super/4 Star (LRP from 2000)	61,000	59,000	54,000	75,109	51,000	48,000	33,000	34,000	–	–	–
Unleaded – Premium (ULSP from 2001)	550,000	530,000	341,000	325,560	376,000	362,000	360,000	354,000	–	–	–
Total Petrol	611,000	589,000	395,000	400,669	427,000	410,000	393,000	388,000	–	–	–
Derv fuel	7,743,000	7,464,000	7,573,000	7,439,278	7,573,000	8,519,000	8,277,000	8,394,000	–	–	–
Total CC motor fuel	8,354,000	8,053,000	7,968,000	7,839,947	8,000,000	8,929,000	8,670,000	8,782,000	–	–	–
Total											
Unleaded – Super/4 Star (LRP from 2000)	775,000	766,000	762,000	547,746	499,000	460,000	444,000	611,000	674,186	612,000	–21.03
Unleaded – Premium (ULSP from 2001)	15,911,000	15,122,000	14,720,000	13,712,128	13,178,000	12,936,000	12,509,000	12,558,000	11,305,790	11,806,602	–25.80
Total Petrol	16,686,000	15,888,000	15,482,000	14,259,874	13,677,000	13,396,000	12,953,000	12,713,000	12,554,000	12,418,000	–25.57
Derv fuel	20,613,000	20,117,000	20,629,000	21,348,821	21,538,000	22,607,000	23,432,000	24,118,000	24,589,843	25,431,000	23.37
Total motor fuel	37,299,000	36,005,000	36,111,000	35,608,695	35,215,000	36,003,000	36,385,000	37,287,000	36,569,819	37,849,602	1.48
Total UK registered vehicles	33,883,000	33,958,000	34,120,000	34,668,000	34,712,000	35,212,000	35,898,000	35,931,000	36,500,000	37,500,000	10.67
Av fuel consumption (t/y)	1.10	1.06	1.06	1.03	1.01	1.02	1.01	1.04	1.00	1.01	–8.31

*Until 2016 the consumption figures were collected for separate commercial and retail categories. This breakdown is no longer available.

^p – Provisional figure; ^r – revised figure

Source: Department for Business, Energy & Industrial Strategy

Recent quantities released for consumption

	Motor spirit			Diesel			Other selected fuels			Litres (mn)	Kgs (mn)
	Unleaded petrol	Bio-ethanol	Total petrol	Diesel	Biodiesel & bioblended	Total diesel	Fuel oil	Gas oil		Total	Road fuel gases (natural gas/LPG)
Financial year											
2012/13	17,683	787	18,470	25,818	521	26,340	88	5,142		50,183	95
2013/14	17,186	822	18,008	26,471	832	27,303	105	5,154		50,710	93
2014/15	16,749	811	17,560	27,314	885	28,199	119	5,359		51,320	88
2015/16	16,500	791	17,291	28,588	688	29,276	185	5,217		52,079	81
2016/17	16,256	758	17,014	29,411	697	30,108	175	5,191		52,590	69
Calendar year											
2012	18,017	775	18,792	25,714	634	26,348	–57*	5,094		50,336	94
2013	17,200	820	18,020	26,204	766	26,969	112	5,177		50,417	93
2014	16,859	814	17,672	27,031	954	27,985	114	5,312		51,186	89
2015	16,523	796	17,319	28,214	670	28,884	204	5,277		51,762	84
2016	16,341	758	17,100	29,393	707	30,100	156	5,226		52,709	71
Month											
Sep 2016	1,398	63	1,461	2,438	54	2,492	7	519		4,341	–
Oct 2016	1,354	66	1,421	2,372	38	2,556	–24*	471		4,430	17
Nov 2016	1,364	63	1,427	2,503	56	2,625	36	405		4,504	–
Dec 2016	1,393	63	1,429	2,563	56	2,619	1	435		4,354	–
Jan 2017	1,298	59	1,348	2,095	30	2,125	3	280		3,765	17
Feb 2017	1,334	67	1,402	2,639	50	2,689	49	453		4,559	–
Mar 2017	1,226	58	1,284	2,307	53	2,361	21	399		4,068	–
Apr 2017	1,382	63	1,444	2,619	62	2,690	18	484		4,633	14
May 2017	1,370	60	1,429	2,350	72	2,422	14	410		4,280	1
Jun 2016	1,371	70	1,440	2,509	77	2,598	18	439		4,501	–
Jul 2017	1,348	53	1,401	2,509	59	2,569	15	454		4,451	1
Aug 2017	1,381	64	1,446	2,463	63	2,526	18	455		4,451	14
Sep 2017	1,335	65	1,400	2,501	53	2,554	12	500		4,470	–
Oct 2017	1,304	66	1,366	2,519	38	2,528	27	434		4,381	7
Nov 2017	1,383	69	1,452	2,604	64	2,668	11	449		4,587	8

^p – Provisional figure; *Negative quantities: adjustments are sometimes made to quantities in historical months, but the adjustment cannot be aligned to the correct month in which the misreporting occurred; It is instead made to the month in which the adjustment was subsequently reported, which can lead to negative quantities being reported in that month, with corresponding negative receipts. – indicates data not available

MARKET

Where next for forecourts?

The UK government announced in July 2017 that – from 2040 – new petrol and diesel cars, and vans, will be banned in a bid to tackle air pollution. Does that mean the forecourt as we know it has only 22 years of life left? Arthur Renshaw, Experian Catalyst, examines the facts.



There are currently some 38mn vehicles on the UK's roads and 99.5% of them are powered by an internal combustion engine (ICE) that requires petrol or diesel – usually dispensed from one of the 8,400 forecourts around the UK. There were 2.5mn new cars registered in 2017 and 99.5% of them had petrol or diesel engines.

Over the last few years, there has been notable growth in alternatively fuelled vehicles (AFVs). In 2017, some 120,000 new AFVs were on the road in the UK – but only 13,600 of these new cars were pure electric (and eligible for the plug-in grant). The other 106,000 AFVs – hybrids – still need to visit a forecourt from time to time.

So, with a current total of 140,000 electric vehicles (EVs) on UK roads – representing less than 0.4% of the total vehicle parc – it is going to be some time before the EV has a real impact on forecourt fuel sales. Current numbers equate to, on average, one EV in every 300 vehicles passing a forecourt. One interesting statistic from the European Union is that, on average, there should be one electric

charging point connector for every 10 EVs – the UK currently has 9.3 EVs per charging point connector (see **Figure 1**, Source: Zap Map).

A quick calculation – given that 2.5mn new cars continue to be sold every year, even if they were all AFVs, it would still take more than 15 years for full conversion of the car parc from ICE-powered vehicles. The continued growth of pure electric and plug-in hybrid vehicles depends on a number of factors over and above the key issues of the speed of charging and vehicle driving range:

- The availability of new vehicles from the manufacturers.
- The continuation of the UK plug-in grant.
- The costs of buying an EV and its running costs, particularly depreciation.
- The availability of charging points.
- The ability of the electric network providers to meet demand.

- The cost of charging to the consumer.

A further key issue relates to how the UK government is going to find a way to tax electric vehicles to counter the loss of revenue from fuel tax and duty (up to £30bn/y).

According to Zap Map there are currently 5,368 EV charging locations across the UK, providing some 15,000 connectors. Meanwhile, Experian Catalyst figures show there are 8,422 open forecourts. Yet there are still very few forecourts with electric charging facilities. This is expected to ramp up with Shell, the Motor Fuel Group (MFG) and MRH all announcing significant installation programmes for 2018.

The industry is also still waiting for the UK government to clarify what constitutes a 'large fuel retailer', where the installation of electric charging points will be mandatory. BP has taken a different route and is testing mobile charging units, whereas Shell has acquired a company called New Motion – one of Europe's largest manufacturers of EV charging units.

Meanwhile, the industry focus on EVs is pushing the use of hydrogen as an alternative fuel further into the future. There are reportedly less than 100 hydrogen-powered cars in the UK, and most of the refuelling locations are primarily for research and demonstration purposes. The hydrogen fuelling facilities at Shell Cobham on the M25, and Shell Beaconsfield on the M40, are operational and worth a visit – although I doubt you will see anyone using them.

There has been significant investment in the UK forecourt sector over the past few years, led by companies such as Euro Garages working with brands like Spar, Greggs, Subway and Starbucks

Photo: Arthur Renshaw

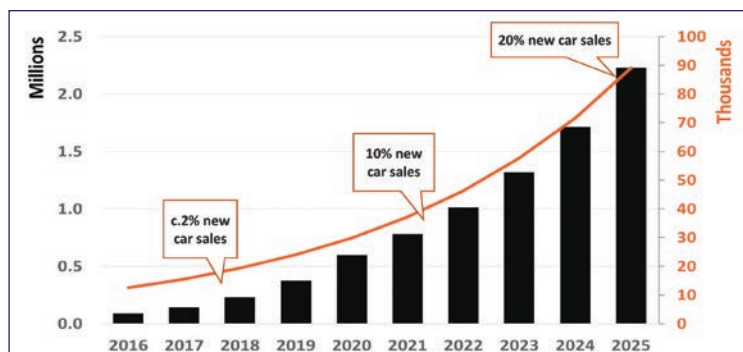


Figure 1: Electric vehicle market forecast to 2025 – fleet size and number of charge points

Source: Zap Map

Constant change

Over the years, the UK forecourt sector has been extremely good at changing and adapting to meet motorists' changing requirements. Despite the threat posed by AFVs and the banning of sales of new petrol and diesel cars in the UK from 2040, the sector has remained very attractive to private equity capital. Christies reports that it sold 160 forecourts in 2017 and that forecourt prices continued to outperform the rest of the retail sector, mainly due to strong demand and lack of sites available.

Consolidation has been the name of the game and both the private equity-owned MRH and the Motor Fuel Group made a number of acquisitions during 2017. This culminated in the Motor Fuel Group acquiring MRH for a reported £1.2bn in early 2018. The combined number of sites under Motor Fuel Group control will be 927, placing it as the UK's number one retail forecourt group by number of sites. Alongside this, the private equity-owned Euro Garages – with 362 UK sites – has made its mark in the UK and is shifting its attention elsewhere. It now has networks in the Netherlands and Germany, and acquired Kroger – a major convenience-store (c-store) operator in the US – for a reported \$2.15bn.

Pace of closure slowing

Whilst the UK has lost 36% of its forecourts since 2000 – when there were 13,107 sites – the trend for site closures has slowed, with a net loss of 365 sites over the last seven years since 2010. The sites that remain are generally much improved. There has been significant investment in the sector over the past few years, led by companies such as Euro Garages working with brands like Spar, Greggs, Subway and Starbucks. Good quality coffee is now a key item on forecourts and, coupled with a food-to-go offer such as Greggs and Subway, the typical forecourt is now a 'destination' and not simply a place to refuel the car.

The addition of 'rest areas' with free Wi-Fi is happening on numerous forecourts. A prime example of this, together with multiple food brand offers, is the '2017 Forecourt of the Year' – the Applegreen Service Area on the M1 in Lisburn Northern Ireland.

The company-owned and independent dealer sectors have learnt to live with the hypermarkets over the years – with a mixture of investment and

pricing, and extending their range of food offers. This is even though the hypermarket sector has continued to add sites at the rate of around 40 a year since 2010 – mainly led by Asda adding unmanned forecourts onto existing store car parks. A possible disruptive influence could be if the Aldi supermarket chain decides to enter the fuel retail market. Aldi is currently trialling fuel sales alongside its general retail operations in Germany, so watch this space.

The company-owned network has declined substantially since 2000 – by 73% – but over the last two years has seen an increase again with the likes of Applegreen, Gulf and Harvest Energy moving back into the company-owned sector. Both BP and Shell have been investing in rebuilding their company-owned networks, while BP has continued its successful strategy with M&S Simply Food offering.

The independent dealer sector holds the lion's share of sites in the UK, with over 5,500 forecourts. It is in this sector where we are continuing to see merger and acquisition (M&A) activity. The top 15 dealer groups have 2,200 sites – some 40% of the dealer network. This consolidation is likely to continue as there is private equity capital available and companies are seeking economies of scale. However, there are suggestions that the property market may be quieter in 2018/2019.

We may have already seen a peak in prices as the forecourt sector is wary of following the casual dining sector into an over active market with rising operating costs and the consequent slowdown resulting in some big-name closures and financial losses. Over the years, the forecourt sector has seen very few companies fail – although it did suffer some turmoil because of the failure of P&H as a major supplier to forecourt shops across the UK. P&H's company-owned network of C-stores – including 21 forecourts – was quickly snapped up by the owners of the Bargain Booze chain.

Dealer supply competition

In 2018, the fierce competition to supply the 5,500-strong UK dealer network with fuel will continue, and the major dealer groups will continue to split their networks across multiple suppliers. Until recently, the small to mid-size dealer sites had a limited choice of fuel supplier – but evidence would suggest that, with Greenergy now offering the Esso brand to sites in

this sector, the other majors such as BP and Shell are now competing for supply to these sites.

In addition, Essar is committed to having its brand on 400 sites in the UK – although it has extended the period in which it plans to achieve this. With only 47 sites at present, the company has a lot of work to do.

As a consequence, the UK dealer sector is likely to have a wide range of opportunities for its fuel suppliers when contracts come up for renewal.

Private equity capital is not confined to backing the larger dealer groups, as Greenergy – which is the principal supplier of fuel to the retail sector in the UK – is now 85% owned by a Canadian private equity group.

For the forecourt shops, the dealer sector has a good choice of shop branding – even if supplier opportunities are more limited. The disappearance of P&H and the reorganisation of the supply chains, together with the Co-op acquiring Nisa and the unknown consequences of the Tesco Booker takeover, are likely to be a challenge for the next few years. Spar – with just under 1,050 branded shops – is the clear market leader in the forecourt sector.

Technological developments

Investment in technology is also occurring on the forecourt – and it is only going to grow as the industry works out how to take advantage of the 'connected car'. Payment Apps, for example, are now available from Shell and BP, meaning everything is done from the driver's seat in the car. The Gas Buddy App – used by 70mn drivers in the US, but not yet seen in the UK – connects the driver to the forecourt and can provide easy access to offers and promotions as a motorist approaches a forecourt.

At some point in the relatively near future – but probably nearer 2040 – your car, or the car you share, may be going to the nearest service station on its own to fill up with fuel and top up its electric battery! Alternatively, your car may recognise it needs fuel and send an order for the fuel to be delivered to your home. There is already a well-funded start-up company in London called Zebra Fuel offering home deliveries of fuel (currently only in central London).

Fuel retailing in the UK has a fascinating future ahead. ●

Given that 2.5mn new cars continue to be sold every year, even if they were all alternatively-fuelled vehicles, it would still take more than 15 years for full conversion of the UK car parc from internal combustion-powered vehicles

DIGITALISATION

More than fuel in the future

To survive and thrive in an increasingly challenging market, fuel retailers will need to keep an eye on new trends, such as autonomous vehicles, which may change the game entirely.

Neale Johnson, Managing Director and Fuels Retail Lead, Accenture; and Mark Gregg, Lead Solution Architect, Digital Fuels Retail, Accenture, report.



The competitive environment in the forecourts sector keeps changing, with new elements added to the mix all the time. An already volatile combination of elements includes the proliferation of electric vehicles (EVs), which are expected to account for 14% of all vehicles on the road in the UK by 2020. Elsewhere, the pace of growth is faster – for example, EVs already make up 30% of all new car sales in Norway. The personalisation of marketing campaigns and the vast expansion of data from new sources will also have a key role to play.

Beyond these factors, fuel retailers must also deal with growing pressures on crude margins, the rise of ride-hailing services such as Uber, and – on the distant horizon – the emergence of autonomous vehicles.

For fuel retailers, assessing the impact of these and other developments – and then making the necessary investments in material and human resources – is the key to future success.

Digital revolution

Digitalisation is high on the agenda of many businesses these days and will be of benefit to fuel retailers and their customers alike. Digital tools enable the retailer to collect and assess customer spending and usage data to understand broad trends and offer the customer exactly what he or she wants, at exactly the right time. For example, customers have said they want to get through forecourt stops more quickly. Big-picture insights, along with more granular findings from new sources of data,

can identify potential new revenue sources and build brand loyalty.

These digital trends are central elements in the fuel retailers' transition to a digital environment. The key elements are:

Customer connectivity

Connectivity between devices and the use of the Internet of Things (IoT) is growing at an unprecedented rate, with vehicles themselves becoming 'computers on wheels' linked to a universe of service providers. Forecasts predict as many as 400mn connected cars on the road worldwide by 2030. Scenarios are developing in which customers use GPS to select the optimum fuelling station while in transit, then pre-order coffee, pre-pay food, check loyalty offers and promotions, and be told in advance which pump to pull up to – all via their mobile phone.

Fuel retailer connectivity

Retailers can use connected devices and the IoT to conduct preventive maintenance. Data from petrol pumps can record flow rates, while thermometers make regular temperature readings and sensors identify peak usage times. This information can be gathered and analysed – using predictive analytics – to prevent downtime and deliver a quality service, either in the store or on the forecourt.

Application programming interfaces (APIs)

APIs allow companies to share and connect software, platforms and applications with each other. One example might be a partnership between car manufacturers and

supermarkets that allows goods to be ordered from the car and collected at the supermarket. APIs provide the basis for the omnichannel, connected experiences customers have come to expect.

Robotics

Automated pumps have already become quite widespread, as has the use of robotic process automation (RPA) to synchronise payment systems with loyalty programmes and the presentation of additional offers to the customer. The next phase of development will involve not only robotic fuelling devices (already in the pilot stage), but also some new concepts, such as home delivery of fuel.

Cloud

By using cloud environments, fuel retailers and other providers can deliver real-time software updates for in-car services, without the customer needing to initiate the change. In this context, the cloud supports immediate communication with the customer while helping gather useful data on customer preferences and interests.

While technology provides the foundation for the digital revolution in fuel retailing, forecourt operators hoping to grow profitably in a digital environment will ultimately need to forge stronger bonds with their customers. With information at their fingertips and expectations formed by sophisticated online players, customers will be more demanding than ever.

While technology provides the foundation for the digital revolution in fuel retailing, forecourt operators hoping to grow profitably in a digital environment will ultimately need to forge stronger bonds with their customers.

An individual approach

As noted, customers are now expecting the same level of service from their fuel retailer as they get from other online retail companies. Fuel retailers hoping to meet these expectations must take marketing beyond broad customer segments; instead, they need to look at customers on an individual level.

Digital capabilities can make this happen, delivering, for example, personalised mobile offers and loyalty points directly to the customer to encourage repeat visits. Similarly, retailers can use smart beacons (proximity beacons that send a signal using low energy Bluetooth technology to send notifications when a smartphone or tablet is within range) to alert in-store customers when they are near a special offer that may be of interest to them, and to ensure that sales staff are stationed appropriately around the store to increase face-to-face interaction. Near-field communications (NFC) technology can help customers access and store product information via their mobile devices, providing better engagement between customers and what the store offers.

Effective hyper-personalisation has non-technical elements, as well. Fuel retailers may want to re-think their brand image and the physical appearance and layout of their stores. It may be counter-productive to attract customers with personalised offers and then disappoint them with a poorly-organised, unattractive store, or with an overall customer experience that is less than optimal.

Employees' attitudes, engagement levels and product knowledge can be a key determinant in providing a positive customer experience. Investments in technology – particularly in areas related to automation – may free employees from performing relatively low-value added tasks to focus more time and attention on customer needs.

To achieve this, however, fuel retailers will need to devote resources to identifying, attracting, training and retaining skilled employees. Required skills may be technical, such as identifying and addressing vehicle maintenance issues that have been flagged by onboard sensors. Or they may be 'soft', including helping customers take advantage of food or beverage offers. Either way, employees will need to keep up with changing customer expectations. For

example, electric vehicle drivers waiting for their cars to be charged may be more willing to take a break, sit down and eat – something not typically associated with a fuelling station.

To address this opportunity, fuel retailers are creating hubs with seating areas and wi-fi service. They are contemplating the addition of other offerings such as car maintenance, hair care and fitness centres. Analytics can help identify employees with the needed skills and orientation, while automated, on-line training programmes can keep employees current with new offerings.

With continuing uncertainty about crude oil prices and fuel demand trends, supermajors are seeking to generate more growth from their fuel retail operations. Indeed, as upstream activities slow, supermajors' financial results are showing increased margins in retailing, both in the forecourt and in convenience stores. But retailing is a highly competitive market, so brands need to differentiate their customer experience as much as possible in order to attract and retain customers.

Picking up the pace

Innovation is important, but the speed of innovation is equally key. Industry disruptors move quickly and fuel retailers need to keep up the pace. Fuel retailers should test proof-of-concept rapidly, with fast pilot programmes designed to reduce the time it takes to get from idea to reality. Retailers should not be afraid to fail, but should do so quickly, learning from the experience and moving on to the next thing.

Ideas for innovation need not come strictly from inside the industry. Fuel retailers should observe trends in online retail, mobile communications, banking and other sectors, and adapt workable ideas to their own fuelling stations.

Taking the right steps

With such a dynamic environment, where should fuel retailers start in their quest for profitable growth? There are three immediate steps that can be taken:

Gather the right data

Organisations should be identifying their future data needs, which may range from data on electric vehicle sales and changing customer food preferences, to information on new connected car services. This data serves as the foundation for a properly targeted digital marketing strategy.

Establish a market position

The fuel retailer needs to determine what it wants to be known for and whether the right mix of services is on offer. In addition to geographic locations, the retailer should determine whether the existing technology infrastructure is suitable for the proposed strategy and what upgrades might be needed.

Build new alliances and partnerships

Fuel retailers should look at current partnerships and open conversations with current partners and suppliers, while exploring prospective alliances with new partners and third parties. It is essential to understand what is on the horizon and what needs to be in place to thrive in an increasingly digital future.

Fuel retailers will need to make the right decisions and changes quickly, against the larger backdrop of the digital revolution. Digital technologies – including the cloud, analytics, big data, mobility, interactivity, robotics, machine learning, artificial intelligence, the IoT and multi-channel marketing, are transforming the relationship between businesses and their customers.

The customers – with ready access to huge amounts of previously unavailable information – can compare and evaluate offerings in detail and within seconds. Conditioned by digital marketers from top technology companies, customers expect better experiences from all providers of goods and services, including fuel retailers.

Confronting an uncertain future is a difficult undertaking. However, fuel retailers that collect and analyse the right data, and then develop and execute a comprehensive digital strategy with new partnerships and new sources of expertise, stand the best chance of building customer loyalty and ultimately outpacing both traditional and non-traditional competitors. ●

Innovation is important, but the speed of innovation is equally key... Fuel retailers should test proof-of-concept rapidly, with fast pilot programmes designed to reduce the time it takes to get from idea to reality

ELECTRIC VEHICLES

Swapping litres for watts



As electric vehicle (EV) sales increase, so too does the need for a well-thought-out charging infrastructure to keep plug-in cars moving. But what impacts will EVs have on the existing and well-established refuelling sector, and are forecourts set to become a thing of the past? asks Zap-Map's Chris Lilly.

As of the beginning of March 2018, there were close to 9,000 public charge points in the UK, according to EV charge point mapping service Zap-Map. Sited at more than 5,300 different locations, they provide over 15,300 connectors for drivers to plug in their cars and recharge. To clarify the terminology, a charge point unit is the equivalent of a refuelling pump, while a connector is comparable to a nozzle.

Putting the figures into context, it is clear that significant resources are being invested in EV charging infrastructure in the UK. As recently as the end of 2013, there were just 5,600 public charging connectors installed in the UK, with that number tripling within four years and forecourts showing promise of further growth going forward. It is a sector that is significantly behind other retail outlets in the EV charging market at present, but there is also huge potential for expansion (see **Figure 1**).

Refuelling at different speeds

Just looking at the number of charge points is a job part done. Unlike conventional refuelling, there are different power ratings of charge points, which offer hugely varying charging speeds. A slow unit is up to 3 kW, and often includes those points installed at the home. Fast chargers are rated at between 7 kW and 22 kW, with the former being the most common speed of public charger.

Finally, rapid chargers are typically either 43 kW AC or 50 kW DC – depending on the connector – although some rapid units can charge faster than that. Tesla Supercharger units, for example, provide 120 kW, and non-Tesla ultra-rapid units (100 kW+) are beginning to be installed.

Considering there are around 140,000 EVs on the road in the UK, it seems at first glance that the public charging infrastructure is barely adequate for the task required. However, what many first

time onlookers don't take into account is that the majority of EV charging is done at home overnight.

Other popular places to recharge an EV are at destinations such as the workplace, supermarkets, shopping centres, hotels and the like. Essentially, anywhere a car will be parked for more than just 15 minutes – and more likely at least an hour or so. As such, charging speeds are often 7 kW; good to fully charge or top-up an EV in a few hours.

The combination of home and destination charging covers a huge amount of an EV driver's requirements – both for pure-electric vehicles which rely solely on plugging-in, and plug-in hybrids (PHEVs) that work best when charged regularly.

These charging habits only cover regular use though, often in local areas and within, or a little further than, the car's electric range. The commute, or runs to the school and shops, going to see friends or family; these are all normal trips that are well within an EV driver's range.

Long-distance driving

For longer trips, however, EV drivers rely on rapid charging to minimise journey time. If covering 200 miles, for example, adding an hour or two to the time taken to cover that distance is plainly unacceptable unless there are no other options. Instead, 50 kW rapid chargers can recharge an EV from 0–80% in 20–40 minutes, depending on battery capacity.

Naturally, very few drivers arrive at a rapid unit with 0% charge showing. As such, recharging times are typically 15–25 minutes for normal EV driving habits, longer than the five minutes it takes to fill up a petrol or diesel tank, but a more reasonable amount of time to add to a journey. Essentially, rapid charging specialises in minimising the amount of time a car is stopped, making long-distance travel viable for EV drivers. It is the closest thing the EV industry has to a petrol station in terms of time taken to refuel. And it is here that forecourts not only have a role to play, but can assist with significant expansion of the public charging network.

There are multiple factors that will drive this increase in EV charging points at fuel retailers. The first comes from a slightly surprising place – oil companies. Oil giants including BP and Shell have announced that they will expand into the EV charging industry, diversifying now in an attempt to stay relevant in the future. It is a smart move. Shell, in particular, is throwing its considerable weight behind the shift, having already launched its own rapid charging network, and buying up an established home and destination charging company, New Motion.

Not only are oil firms moving into the EV charging market, but the charging networks are teaming up with fuel retailers to establish a presence on forecourts. Green energy company Ecotricity's Electric Highway rapid charging network – which currently has a monopoly on motorway service charging – is expanding into forecourts in London. Rapid charging network GeniePoint is going further still, having agreed a deal with the Motor Fuels Group to put EV charge points at forecourts across the UK, seeing a potential 400 or so locations currently available.

Rapidly evolving

It is noticeable that this expansion of EV charging at forecourts involves rapid charging. Back in 2013, just 3% of all public EV connectors were rapid chargers. That increased to 10% in 2014, and 18% in 2015. Since then, the rapid charging sector has climbed to almost 20% of the public charging market – and it is expected to kick on again in the next few years with the uptake of EV charging at forecourts. Today, there are more than 3,000 connectors available from almost 1,400 devices at over 900 locations.

Home, workplace and destination charging will remain

the most regular recharging types, but rapid charging will be of equal importance, allowing not only long-distance EV travel, but also instilling confidence for buyers looking at plug-in models.

With the lines between conventional refuelling and public charging beginning to blur already, added impetus for change will be given by the UK government, which is currently finalising the Electric and Automated Vehicles Bill in parliament as this supplement goes to press. Some of the key aspects likely to be passed into law are the requirement for simplified access and payment at all public charge points, and for large fuel retailers and service stations to provide adequate provision for rapid EV charging. There are currently just 58 rapid chargers offering 152 connectors at forecourts in the UK. Motorway services are better served, with 452 units and 837 connectors, available at 220 sites. Every UK motorway service station has provision for rapid charging, thanks to Ecotricity's Electric Highway network.

The intention is clear. Combine this Bill with the announcement that the UK will ban the sale of new non-electrified cars from 2040 onwards – phasing out conventionally-fuelled models from everyday transport – and the UK is looking to consolidate its strong position as one of the world's leading EV markets by moving to smooth out the gaps and problems with public charging infrastructure.

Boost for forecourts

This should not be viewed as a problem for fuel retailers, rather an opportunity. To start with, forecourts are located where they are because it is a convenient place for drivers to refuel their cars – and the same is true for EV charging. Not only that, but for the short- to medium-term future, charging

times will be at least 5–15 minutes for most drivers.

Charge point manufacturers are already starting to install the ultra-rapid chargers previously mentioned – up from the 50 kW currently found to 100 kW, 150 kW, or even plans for 350 kW. However, battery sizes are increasing too as new vehicle models are launched, offering greater driving range. So, even though rapid chargers are increasing in power, they are having to charge bigger battery packs. Plans are being put into action to future-proof the public charging network – and rapid charging will increase in importance.

It will take a big step forward in battery technology to bring EV charging times directly in line with those of filling up a conventionally fuelled car. So, for the foreseeable future, EV drivers will have more time to kill while charging than those using a petrol pump. This is especially the case since, once plugged in, an EV connector doesn't require any other action from the driver until the charge is done.

With charging times at the 5–15 minute mark or longer, forecourts will need to provide improved waiting areas and services such as WiFi and retail/hospitality spaces. Drivers could wait in their car, but will, in effect, be a captive audience. So, although the amount of money taken at the conventional 'pump' will decrease, the potential for add-on sales increases as drivers have more time to wait. Provision of quality services will be key.

The EV market might not need the existing refuelling infrastructure at established locations to thrive, but it will suit all parties if forecourts diversify into the public charging market and vice versa. Forecourts will gradually see a shift from pumps to chargers, but can remain relevant and safeguard jobs. The EV industry will have a vast number of new locations ready-made at which to add new charge points, expanding the existing infrastructure further, and filling in parts of the EV public charging map that are currently sparsely catered for.

In short, EVs might cause forecourts a fair amount of upheaval in the immediate future, but rolling out new charge points at service stations is a long term win-win for all aspects of the UK car refuelling market. ●



Source: Chargemaster POLAR

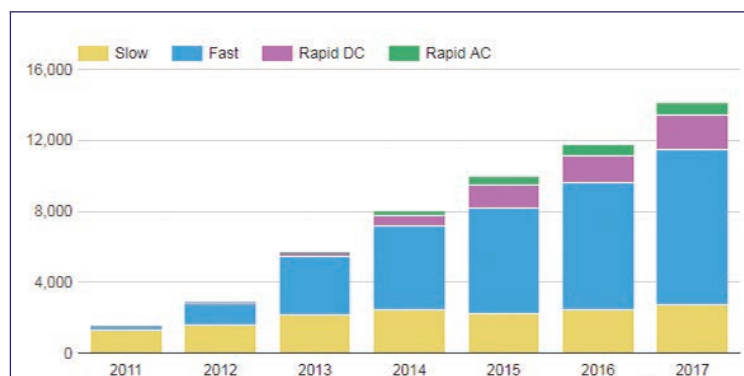


Figure 1: Charging connectors by type, 2011–2017

Source: Zap Map

PRICING

A decade on from the soaring UK pump prices that rocked family budgets, ate into high street spending and spurred the 'dash for diesel', a set of new realities is emerging. For the first time since 1992 – when HM Revenue and Customs started recording volumes of road fuel released into the UK market – combined petrol and diesel levels have faltered. No fuel protests, no weather events, no price shocks can explain why combined demand from January to November 2017 of 43,132bn litres (comprising 15.412bn litres of petrol demand and 27.720bn litres diesel; see 'Recent quantities release for consumption' table, p13) in the UK shot up by nearly 1.5bn litres since 2013 and then flat-lined last year – even suggesting a tip downwards.

All the more astonishing were Department for Transport statistics towards the end of 2017 (November), which showed UK traffic levels at record highs for nine consecutive quarters.

UK petrol demand has been on the wane for quite some time. That is in part down to better fuel efficiency, but also booming sales of diesel cars – up until the recent exhaust emissions controversy. A recovering economy which led to more lorries and vans on the road made sure that diesel consumption continued to plug the gap left by falling petrol demand.

But all that may now be changing.

Last year also saw the end of more than two years of petrol pump prices below 120 pence per litre (p/l), following the oil price slump from 2014 onwards. The average UK pump price bottomed out at 102 p/l in January 2016, while diesel tumbled to around 103 p/l in the same period.

By the end of 2017, petrol was knocking on the door of 121 p/l, while diesel was climbing towards 123 p/l.

However, unlike US gasoline demand, UK petrol consumption didn't respond to lower prices. Monthly demand hit 1.5bn litres just once more in June 2016 and has been below 1.4bn litres in three of the past 11 months recorded by HM Revenue and Customs.

Austerity and high housing costs appear to have trumped lower road fuel costs. While traffic levels out on the open road set new records, traffic on minor

All set for change

The fuel sector is like a roller coaster. How will the rapidly changing forecourt fuel sector today be viewed in years to come? asks the AA's Luke Bosdet.



Source: Shell

urban roads has yet to return to pre-2008 levels. This is despite growth in population and car ownership.

More home deliveries and online shopping accounts in part for the poor recovery of residential and local traffic. However, increased multi-occupancy – from working-age children staying at home or sharing with friends due to the high costs of housing – has had the double impact of increasing car sharing while putting the squeeze on parking availability. Consequently, one in 10 drivers will sometimes put off a car trip for fear of losing a parking space outside or near their homes. That rises to 24% in London.

Price wars

Even if pump prices have been creeping up since 2016, the background music over the past two years has been one of regular supermarket price wars.

A series of mini-surges and then falls in the oil price, when OPEC's attempts to cut production ran up against growing US supply and production efficiency, proved fertile ground for fuel price competition among the Big Four supermarkets. Nervous of losing market share to discounters like Aldi and Lidl, the one clear USP (unique selling point) the established superstores have over the new competitors is road fuel.

Prior to this period of price wars, supermarkets tended to average up to 3 p/l cheaper than non-supermarket competitors. Through 2017, the Big Four have regularly averaged 4 p/l to 5 p/l cheaper.

Despite keeping faith in general with lower pump prices, the supermarkets' generosity has waned in non-competitive areas as the oil price has recovered. The 'up to 2 p/l' cuts in pump prices are shorthand for 'where we are forced to' by a more competitive supermarket rival, principally Asda. This has relegated many price battles to mere skirmishes or phoney wars in many parts of the country – to the extent that, in early 2018, the average price of petrol in the North of the UK is 2 p/l – or £1 a tank – cheaper than in the South. The North is the heartland of the two more aggressively competitive supermarkets, with petrol costing as much as 13 p/l cheaper than in some southern towns with a supermarket fuel presence.

Diesel – despite recent bad publicity and urban restrictions – will continue to have an appeal for those drivers prepared to do the maths and be wary of cities. Official new car fuel consumption statistics give diesel on average a

19% efficiency advantage over petrol. With the pump price of diesel easily within 4 p/l of petrol, and sometimes almost neck-and-neck, why wouldn't the long-distance, high-mileage car driver consider a diesel-powered vehicle?

A pump price differential of 12 p/l or more in 2008 started to kill enthusiasm for diesel, as the break-even point for recouping the higher cost of buying a diesel car got further and further away. That is not the case today. Indeed, if oil reached \$75/b, petrol at 125 p/l may be enough to get drivers more interested again.

Change around the corner

With falling fuel volumes and greater take-up of electric vehicles and hybrids, it is a mixed picture as to whether retailers recognise the change that is around the corner. The trade press regularly carries stories of individual sites and operators installing electric charging points, yet the trade bodies – the Petrol Retailers Association and Association of Convenience Stores – are resisting government pressure for large sites to have to install equipment. Instead, they are calling for grants to allow individual retailers to invest in charging facilities as

No fuel protests, no weather events, no price shocks can explain why demand from January to November 2017 of 43,132bn litres in the UK shot up by nearly 1.5bn litres since 2013 and then flat-lined last year – even suggesting a tip downwards

and where they think there is a demand.

One might argue that, having in effect been the tax collectors for billions of pounds of fuel duty over decades, retailers are owed one by the government. However, not having to dig up a site and install fuel reservoirs and pumps means that electric chargers make vehicle fuel retailing a possibility for a much wider range of businesses. Only time will tell what that does to the Big Four supermarkets' advantage over newer rivals. Furthermore, which businesses take best commercial advantage of the time drivers are captive while their vehicles charge up is another future challenge.

If some retailers are less than keen to switch their attention and emphasis to electric charging, the commodity markets are not. Platts market reports and analyses of future trends focus on the 'battery metals squeeze' and what that means for future costs and trading.

An uncertain path

For the car owner – facing an end to new petrol and diesel car sales in 2040, and cities like Oxford banning fossil fuel cars from their centres from 2020 – electric vehicles and hybrids are

a certainty. However, the path to getting there is not.

This year again sees UK fuel duty stuck at 57.95 p/l, having fallen to that level on 23 March 2011. The government is looking to fill the gap left by falls in fossil fuel demand and standardised car tax for all new vehicles except those with zero CO₂ emissions – in effect adding as much as £130 to the annual cost of running some low-emission cars.

Unsurprisingly, many owners have clung on to their smaller older cars. In periods of uncertainty, it is sometimes easier to stick with what you've got. What's more, another 10 years down the road, car owners will probably be hanging on to at least one of their fossil fuel vehicles as they try to figure out how a new world of EVs is connected ●

POWERful WOMEN

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