

BUS FLEET AUDIT

31 March 2022

This is an audit of the London Buses contracted fleet using data collated on 31 March 2022. This is the 27th audit and the report represents the results and makes comparisons with previous audits.

1. Summary

This year's fleet size of 8,795 buses represents a reduction of 273 buses in comparison to last fleet audit total on 31 March 2021 of 9,068. The number of vehicles in the fleet will change from time to time, as new vehicles enter service and the vehicles they are replacing are decommissioned. The fleet size also varies in response to service changes.

The fleet total includes 785 Electric buses, 22 Fuel Cell buses and 3,854 Hybrid buses (including 1,000 new Routemasters). All vehicles in the fleet are PSVAR compliant.

2. London Bus Fleet by Age and Type as at 31 March 2022

The current data at 31 March 2022 shows the fleet size and the quantity registered in each year by type.

OVERALL FLEET AGE PROFILE AS AT 31 MARCH 2022								
Year	Double deck	Single deck	NRM - Hybrid	Diesel	Electric	Fuel Cell	Hybrid	Total
2007	4	4	-	8	-	-	-	8
2008	56	55	-	111	-	-	-	111
2009	321	174	-	489	-	-	6	495
2010	410	167	-	538	-	-	39	577
2011	545	301	-	760	-	-	86	846
2012	634	192	8	678	-	-	140	826
2013	471	87	111	288	-	-	159	558
2014	489	78	237	81	6	-	243	567
2015	630	180	307	192	9	-	302	810
2016	798	233	227	256	52	-	496	1031
2017	691	348	109	340	18	2	570	1039
2018	481	267	1	201	66	-	480	748
2019	270	211	-	179	99	-	203	481
2020	250	66	-	13	169	4	130	316
2021	251	83	-	-	318	16	-	334
2022	27	21	-	-	48	-	-	48
TOTAL	6328	2467	1000	4134	785	22	2854	8795

3. London Bus Fleet by Type – 31 March 2012 to 31 March 2022

Year as at 31 March	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
TOTAL	8743	8717	8765	8977	9186	9616	9396	9142	9102	9068	8795	
Single deck	Diesel	2661	2608	2606	2662	2617	2612	2587	2435	2406	2309	2130
	Hybrid	33	28	23	23	18	18	13	-	-	-	-
	Fuel Cell	5	5	8	8	8	8	10	10	2	2	2
	Electric	-	-	2	8	17	66	91	150	201	268	335
	TOTAL	2699	2641	2639	2701	2660	2704	2701	2595	2609	2579	2467
Double deck	Diesel	5806	5716	5315	5045	4804	4390	3463	2873	2605	2388	2004
	Hybrid	233	352	643	799	981	1564	2227	2669	2773	2884	2854
	Hybrid NRM	5	8	168	432	736	953	1000	1000	1000	1000	1000
	Fuel Cell	-	-	-	-	-	-	-	-	-	-	20
	Electric	-	-	-	-	5	5	5	5	115	217	450
	TOTAL	6044	6076	6126	6276	6526	6912	6695	6547	6493	6489	6328

4. Fleet Emission Standards Changes as at 31 March from 2012 to 2022

Emissions as at 31 March	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Euro VI	-	2	14	449	1194	2300	3383	4045	4274	4409	4361
Euro VI upgraded from EEV	-	-	-	-	-	-	135	225	378	396	311
Euro VI upgraded from Euro V	-	-	-	-	-	-	752	2296	2846	3028	2812
Euro VI upgraded from Euro IV	-	-	-	-	-	-	176	358	688	672	504
EEV	463	858	853	616	631	564	309	194	19	-	-
Euro V	2263	2660	3151	3687	3633	3585	2611	848	259	9	-
Euro IV	1989	1771	1683	1625	1628	1627	1256	861	288	57	-
Euro IV upgraded from Euro III	3246	3116	2934	2534	2060	1451	658	140	25	10	-
Euro II	777	305	121	50	10	10	10	10	7	-	-
Fuel Cell	5	5	8	8	8	8	10	10	2	2	22
Electric	-	-	2	8	22	71	96	155	316	485	785
Fleet Total	8738	8712	8765	8977	9186	9616	9396	9142	9102	9068	8795
Hybrid (excl NRM)	266	388	662	822	999	1582	2240	2669	2773	2884	2854
NRM Hybrid	1	8	168	432	736	953	1000	1000	1000	1000	1000

As at 31st March 2022, all 8,795 buses in the fleet are to the equivalent of Euro VI emissions standard or better. The fleet included 807 Zero Emission buses representing 9.18% of the total.

5. Fleet Emissions by Bus Type and Operator as at 31 March 2022

Fuel	Body Type	EU Standard	31/03/22	Abellio	Arriva Group	Go Ahead Group	HCT Group	Metroline	RATP	Stagecoach	Sullivan Buses	Tower Transit	University Bus
Diesel / Hybrid	Single deck Diesel	Euro VI upgraded from Euro IV	203	-	12	40	2	98	18	29	-	3	1
		Euro VI upgraded from Euro V	750	69	82	248	29	120	106	76	6	14	-
		Euro VI upgraded from EEV	26	-	-	19	-	-	7	-	-	-	-
		Euro VI	1151	161	88	260	76	92	269	143	20	37	5
	Double Deck Diesel	Euro VI upgraded from Euro IV	301	-	76	91	-	43	27	53	11	-	-
		Euro VI upgraded from Euro V	1323	41	429	371	-	103	90	257	25	7	-
		Euro VI upgraded from EEV	267	-	-	-	-	199	47	-	-	21	-
		Euro VI	113	-	41	3	-	-	5	52	12	-	-
		Euro VI upgraded from Euro V	433	43	152	68	1	72	71	26	-	-	-
	Double Deck Hybrid	Euro VI upgraded from EEV	18	-	-	-	-	-	18	-	-	-	-
		Euro VI	2403	228	325	579	49	524	233	405	-	57	3
NRM Hybrid	Double deck	Euro VI upgraded from Euro V	306	41	100	37	-	34	60	34	-	-	-
		Euro VI	694	110	187	243	-	94	21	39	-	-	-
Fuel cell	Single deck	Zero Emission	2	-	-	-	-	2	-	-	-	-	-
	Double deck	Zero Emission	20	-	-	-	-	20	-	-	-	-	-
Electric	Single deck	Zero Emission	335	34	13	165	-	23	95	5	-	-	-
	Double deck	Zero Emission	450	29	22	86	2	67	167	72	-	-	5
Total			8795	756	1527	2210	159	1491	1234	1191	74	139	14

6. Operator Fleet Changes

The data as at 31 March from 2012 to 2022 details the individual bus operator fleet size by vehicle quantity, the respective % of the overall network fleet and fleet average age.

Fleet size as at 31 March											
OPERATOR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Abellio	530	568	596	661	738	708	745	720	798	831	756
Arriva Group	1737	1747	1733	1652	1634	1768	1706	1652	1648	1590	1527
<i>Ensignbus</i>	-	-	-	-	-	-	-	-	-	10	-
Go Ahead Group	1753	1720	1750	2298	2251	2370	2354	2141	2254	2265	2210
Metrobus	331	324	315	315	315						
HCT Group	83	83	86	180	92	152	129	152	157	163	159
Metroline	1163	1099	1606	1495	1680	1735	1678	1729	1602	1532	1491
RATP	948	933	960	1056	1047	1066	1076	1112	1086	1069	1234
Quality Line	71	82	84	89	89	89					
Stagecoach	1160	1147	1198	1062	1287	1290	1232	1176	1102	1198	1191
Sullivan Buses	6	17	22	22	26	43	64	68	69	78	74
Tower Transit	-	-	415	462	426	479	407	388	381	321	139
University Bus	-	-	-	-	5	5	5	4	5	11	14
Total	8743	8717	8765	8977	9186	9616	9396	9142	9102	9068	8795
Less than 10 years	7715	7619	6952	6651	7384	8186	8332	8163	7590	7261	6380
% of Total fleet as at 31 March											
OPERATOR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Abellio	6.06	6.52	6.80	7.36	8.03	7.36	7.93	7.88	8.77	9.16	8.60
Arriva Group	19.87	20.04	19.77	18.40	17.79	18.39	18.17	18.07	18.11	17.53	17.36
<i>Ensignbus</i>	-	-	-	-	-	-	-	-	-	0.11	-
Go Ahead Group	20.05	19.73	19.97	25.60	24.50	24.65	25.07	23.42	24.76	24.98	25.13
Metrobus	3.79	3.72	3.60	3.60	3.60						
HCT Group	0.95	0.95	0.98	2.01	1.00	1.58	1.37	1.66	1.72	1.80	1.81
Metroline	13.30	12.61	18.32	16.65	18.29	18.04	17.86	18.91	17.60	16.89	16.95
RATP	10.84	10.71	10.95	12.34	11.40	11.09	11.43	12.16	11.93	11.79	14.03
Quality Line	0.81	0.94	0.96	0.99	0.99	0.99					
Stagecoach	13.27	13.16	13.67	11.83	14.01	13.42	13.11	12.86	12.11	13.21	13.54
Sullivan Buses	0.07	0.20	0.25	0.25	0.28	0.45	0.68	0.74	0.76	0.86	0.84
Tower Transit	-	-	4.73	5.15	4.64	4.98	4.33	4.24	4.19	3.54	1.58
University Bus	-	-	-	-	0.05	0.05	0.05	0.04	0.05	0.12	0.16
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Less than 10 years	88.24	87.40	79.32	74.09	80.38	85.13	88.70	89.29	83.38	80.07	72.54
Average Age of Fleet as at 31 March (years)											
OPERATOR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Abellio	5.70	5.60	6.30	5.94	5.96	5.24	4.64	4.98	5.57	6.12	6.25
Arriva Group	6.50	6.50	7.43	6.39	6.17	5.93	5.28	6.07	6.76	7.40	8.06
<i>Ensignbus</i>	-	-	-	-	-	-	-	-	-	6.56	-
Go Ahead Group	5.10	5.70	6.40	7.16	6.83	5.78	5.63	5.54	6.06	6.65	7.25
Metrobus	5.80	5.80	6.70	6.70	6.70						
HCT Group	5.70	5.20	6.20	7.72	7.00	2.36	2.67	3.20	4.26	5.22	6.15
Metroline	6.60	5.70	5.60	6.26	6.41	6.31	6.16	6.09	6.08	6.83	7.51
RATP	5.25	5.60	5.60	6.63	5.73	6.82	6.73	5.62	5.91	6.64	5.95
Quality Line	5.90	4.50	4.50	4.07	4.07	4.07					
Stagecoach	6.80	7.10	7.10	6.54	6.73	6.43	6.50	5.91	6.19	6.26	7.02
Sullivan Buses	0.30	6.50	8.00	9.05	9.42	8.31	5.63	6.09	7.04	8.31	8.67
Tower Transit	-	-	5.40	6.10	5.38	5.41	5.48	5.27	6.18	6.34	7.11
University Bus	-	-	-	-	2.60	3.37	4.43	3.75	6.39	6.19	6.99
Total	5.80	5.90	6.20	6.41	6.47	6.00	5.77	5.70	6.11	6.69	7.12

7. All Single Deck Vehicles – Breakdown by Year and Length

The tables below show the single deck fleet profile for both Diesel Euro VI and Zero Emission buses as at 31st March 2022 split by respective vehicle lengths. As at 31st March 2022 13.7% of the single deck fleet is zero emission.

EURO VI DIESEL Single Deck Bus age and length profile at 31 st March 2022								
Year	7.8 – 7.9m	8.8- 9.0m	9.3- 9.7m	9.9- 10.2m	10.4- 10.5m	10.6- 10.9m	11.5- 12.0m	Total
2007		3		1				4
2008		13		38		4		55
2009		5		101	34	15	19	174
2010	7		11	138		11		167
2011		33	31	154		76	7	301
2012		24	57	58		53		192
2013		22	1	9		55		87
2014		20	8	12		32		72
2015		70	9		8	69	15	171
2016		61	48	1		76		186
2017		66	60		37	165		328
2018	6	13	20		14	141	7	201
2019		32	19		32	70	26	179
2020		13						13
Total	13	375	264	512	125	767	74	2130

ZERO EMISSION Single Deck Bus age and length profile at 31 st March 2022								
Year	7.8 – 7.9m	8.8- 9.0m	9.3- 9.7m	9.9- 10.2m	10.4- 10.5m	10.6- 10.9m	11.5- 12.0m	Total
2014						6		6
2015						7	2	9
2016							47	47
2017						18	2	20
2018						66		66
2019			10	22				32
2020			1			52		53
2021		12		24		47		83
2022*						21		21
Total	-	12	11	46	-	217	51	337

*To 31st March 2022