

# **Electric Vehicle Charge Point Usage in Scotland - August 2017**

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## **1. The ChargePlace Scotland Network**

The ChargePlace Scotland scheme is the initiative behind Scotland's charge point network and was launched in 2010. This scheme also offers funding to install a home charging point for electric vehicles and has three main areas:

- 1. Domestic charge points the installation of a home charging point.
- 2. Commercial Workplace charge points
- 3. Community Planning Partnerships (CPP)

Charge Your Car (CYC) is the operational provider of the ChargePlace Scotland network. Not all the charge points in the ChargePlace Scotland network are publically accessible as they were installed under the Commercial Workplace scheme. The data analysed refers to both the commercial and public charge point usage. Domestic charge point usage is not considered in the data provided. ChargePlace Scotland do not record the working status of charge points thus no charge point availability data exists. Previous Foundation analysis has examined usage data relating to the month of August from 2013.

## 2. Summary

In August 2017 there were a total of 37,433 charging sessions, an increase of 5,947% from the number of sessions which took place in August 2013 (619) and an increase of 43% from August 2016. In August 2017, the mean charge duration was 4hrs and 12mins and there was an average of 43 charging sessions at every used charge point across the network that month. 878 (77%) charge points were used at least once in August 2017 compared to 651 charge points (75%) in August 2016 and 475 (68%) the year before.

The Committee for Climate Change suggests that at least 5% of the car fleet in Scotland should be electric by 2020 in order to reach 'critical mass' for a larger roll out - this would mean a total of approximately 120,000 electric vehicles with 27,000 new car sales of electric vehicles a year in 2020<sup>1</sup>. At the end of Q2 2017 the number of licensed vehicles in Scotland which were eligible to receive the plug-in car and van grant was 5,521.

<sup>&</sup>lt;sup>1</sup> Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027.

# **3. ChargePlace Scotland charging network pattern**

	August 2013	August 2014	August 2015	August 2016	August 2017
Total number of charge points	-	482*	694	870	1133
- % change from year before			44%	25%	30%
Total number of connectors	-	885	1,373	1,772	2,089
- % change from year before			55%	29%	18%
Rapid chargers charge points/connectors			89/234	161/456	182/536
Number of electric vehicles in Scotland**	362	792	2,050	3,575	5,521
- % change from year before		119%	159%	74%	54%

### Table 3.1 The ChargePlace Scotland Network

\*Includes 3 portable charging units without a set location

\*\*The number of Plug-in-Grant eligible vehicles in Scotland at the end of Q2 for each year

## Figure 3.1 Charge point locations in Scotland, August 2017



3kW
 3kW/22kW
 22kW
 Unknown
 3kW/7kW
 7kW
 50kW

## Table 3.2 The ChargePlace Scotland Network Usage

	August 2013	August 2014	August 2015	August 2016	August 2017
Total number of charging sessions	619	2,885	12,939	26,119	37,433
- % change from year before		366%	348%	102%	43%
Number of charge points used (% of network)	77	265 (55%)	475 (68%)	651 (75%)	878 (77%)
Average number of charging sessions at every charge point used that month.	8	11	36	51	43
- % change from year before		38%	229%	40%	-16%
Average number of charging sessions across the entire network	-	6	19	30	33
Longest charging session (days Hours Minutes)	20d 5H 18M	27d 19H 6M	83d 23H 33M	83d 2H 4M	43d 6H 59M
Longest charging session charge point location	Bleaching Field Community Centre, Dunbar	Milesmark Depot car park Dunfermline	NHS National Procurement Distribution Centre	Kelso Town Hall	Camanachd Car Park Fort William
Mean charge duration (hh:mm:ss)	19:16:45	13:00:10	07:12:35	05:20:14	04:12:56
Total electricity used (kWh)	4,717.12	23,175.29	78,295.74	185,404.68	326,429.4
Price of electricity at the average commercial rate for South Scotland (15.02p per kWh*)	£714.16	£3,508.69	£11,853.82	£28,069.90	£49,420.76
Mean average electricity used per charging session (kWh)	7.62	8.03	6.09	7.14	8.76
The number of miles a 2014 Nissan Leaf <sup>**</sup> would be capable of from the average electricity used in a session.	31.75	33.47	25.38	29.75	36.52
Total number of miles a 2014 Nissan Leaf would be capable of from all electricity used that month	19,654.65	96,563.7	326,232.25	772,519.51	1,360,122.49

\*Average annual domestic electricity bills for selected towns and cities in the UK and average unit costs (DECC: Annual domestic energy bills, Quarterly Energy Prices 2.2.3)

\*\*A 2014 Nissan Leaf has an energy consumption of 0.24 kWh/mile and a maximum range of 124 miles from a full charge (NEDC)

# 4. Licensed Plug-in electric grant vehicles

At the end of Q2 2013, there were 6,226 licensed vehicles eligible to receive the plug-in car and van grants in the UK, of which 362 were licensed in Scotland. This had increased to 11,373 licensed vehicles by the end of Q2 2014 of which 792 vehicles were registered in Scotland. By the end of Q2 2017 the number of licensed vehicles which were eligible to receive the plug-in car and van grant had risen sharply to 104,073 of which 5,521 (5%) vehicles were registered in Scotland. Examples of vehicles eligible for the plug-in car grant include the BMW i3, Nissan Leaf and the Mitsubishi Outlander PHEV.

# 5. ChargePlace Scotland network usage by type of charge point

Туре	Charging Sessions	Total kWh	Mean kWh	Median kWh	Max kWh	Mean duration (hh:mm:ss)	Median duration (hh:mm:ss)
3kW	1	0	0	0	0	00:10:00	00:10:00
3kW/7kW	254	2,216.05	8.83	7.69	60.41	05:41:42	04:20:30
3kW/22kW	103	716.95	7.24	7.62	22.37	05:13:14	01:50:00
7kW	11,631	75,845.45	6.57	5.38	116.83	09:16:26	03:23:00
22kW	6,870	67,016.42	9.82	6.27	3,096.96	05:22:28	02:19:00
50kW	18,500	180,315.5	9.78	8.23	80.78	00:32:11	00:23:00
Unknown	74	319.04	4.31	2.79	21.04	18:37:38	01:17:30
All	37,433	326,429.4	8.76	6.85	3,096.96	04:12:56	00:42:00

#### Table 5.1 Network usage by type of charge point

In August 2017, 49% of all charging sessions in the ChargePlace Scotland network took place at rapid charge points (43kW+) with 31% and 18% of all sessions taking place at 7kW and 22kW charge points respectively. Unsurprisingly, the average charge duration generally decreases with increased speed of charge. 7kW charge points had an average charge duration of 9 hours and 16 mins, 22kW charge points was 5 hours 22 mins and rapid charge points had an average charge charge duration of just 32 minutes.

# 6. ChargePlace Scotland network usage - top ten tables

Rank	Charge Point ID	Name	Charge Point Type	Total Charging Sessions	Total Electricity Used (kWh)	Average Duration (hh:mm:ss)
1	50339	Public Works Dept, Clepington Rd. Dundee	50kW	1056	8,326.3	00:19:13
2	50911	Queen Street Car Park, Broughty Ferry, Dundee	50kW	751	5,231.1	00:20:47
3	50812	Ninewells Hospital, Dundee	50kW	502	4,385.2	00:22:19
4	50769	203020 Taxis, Dundee	50kW	468	3,341.7	00:18:28
5	50692	Dundee Ice Arena, Dundee	50kW	356	3,521.2	00:25:32
6	51220	Falkirk Stadium, Falkirk	50kW	353	4,511.2	00:25:57
7	50349	Greenmarket Multi Car Park, Dundee	50kW	337	4,398.8	00:35:36
8	50770	203020 Taxis, Dundee	50kW	309	2,090.4	00:16:38
9	50929	James Hamilton Heritage Loch Car Park, East Kilbride	50kW	296	3,145.2	00:31:43
10	50773	203020 Taxis, Dundee	50kW	286	1,765.9	00:14:55

### Table 6.1: Top ten charging charge points by number of charging sessions, August 2017

Analysis of individual charge points shows that in August 2013, 7 out of the top 10 locations by the number of charging sessions were unlikely to have been publically accessible. By August 2016, all charge points in the top ten were those which are publically available and were all rapid charge points and this remained the case for August 2017. In August 2015, 25% of all charging sessions took place at the top ten most frequented charge points. In August 2016, the top ten most frequented charge points made up just 15% of all charging sessions that month and in August 2017 this proportion was 13%.

In August 2015, only 13 charge points were used 100 or more times. Two years later, in August 2017, this increased to 76 charge points. In August 2016, 129 charge points were used between 1 and 4 times. A year later, 132 charge points were used the same amount of times.

Rank	Charge Point ID	Name	Charge Point Type	Total Charging Sessions	Total Electricity Used (kWh)	Average Duration (hh:mm:ss)
1	50630	University of Dundee, Nethergate, Dundee	22kW	35	8,528.7	15:20:27
2	50339	Public Works Dept, Clepington Rd. Dundee	50kW	1056	8,326.3	00:19:13
3	50911	Queen Street Car Park, Broughty Ferry, Dundee	50kW	751	5,231.1	00:20:47
4	51220	Falkirk Stadium, Falkirk	50kW	353	4,511.2	00:25:57
5	50349	Greenmarket Multi Car Park, Dundee	50kW	337	4,398.8	00:35:36
6	50812	Ninewells Hospital, Dundee	50kW	502	4,385.2	00:22:19
7	50699	Water Yett Car Park	22kW	70	3,722.6	02:41:27
8	50692	Dundee Ice Arena, Dundee	50kW	356	3,521.2	00:25:32
9	50921	Rouken Glen Road, Thornliebank	50kW	270	3,386.7	00:28:59
10	50769	203020 Taxis, Dundee	50kW	468	3,341.7	00:18:28

# Table 6.2: Top ten charging units by electricity used, August 2017

Rank	Charge Point ID	Name	Charge Point Type	Electricity Used (kWh)	Duration (days Hours Minutes)
1	50198	Camanachd Car Park Fort William	7kW	3.3	43d 6H 59M
2	51100	Larbert Railway Station	22kW	0	34d 5H 52M
3	51019	The Falkirk Wheel, Falkirk	22kW	4.1	28d 21H 17M
4	50623	South Edinburgh Local Office	7kW	0	23d 1H 50M
5	50461	Inverkeithing Rail Station Car Park	7kW	0	22d 21H 9M
6	51292	Market Square, Stonehaven	7kW	0	17d 15H 39M
7	51289	Buchan House, St Peters St, Peterhead	7kW	0	17d 2H 3M
8	50048	Queen Margaret University, Musselburgh	7kW	8.6	16d 14H 0M
9	50518	**TEST SITE** Charge Your Car HQ	Unknown	1.9	16d 4H 24M
10	50424	Bankhead Central	7kW	66	15d 21H 10M

Table 6.3: Top ten locations by longest charging session, August 202
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*Caution* must be taken when looking at longest time period as the data for average charging time and longest charging time is potentially misleading. The way that the charging units are designed means that a charging session is not ended until the charging connector has been fully closed. Users sometimes fail to close the socket properly which would lead to the charging duration to continue to register until a new user or the maintainer of the charging socket closes it properly.

# 7. Usage by Local Authority

Local Authority	Charge Points	Connectors	Charge points used at least once	% of charge points used at least once
Aberdeen City	60	116	54	90%
Aberdeenshire	32	60	24	75%
Angus	27	46	21	78%
Argyll & Bute	35	66	15	43%
Clackmannanshire	13	27	11	85%
<b>Dumfries &amp; Galloway</b>	13	30	11	85%
Dundee City	85	174	76	89%
East Ayrshire	13	28	7	54%
East Dunbartonshire	4	9	3	75%
East Lothian	25	35	16	64%
East Renfrewshire	8	17	8	100%
Edinburgh, City of	90	151	68	76%
Eilean Siar	22	50	15	68%
Falkirk	20	31	17	85%
Fife	79	147	64	81%
Glasgow City	88	180	73	83%
Highland	55	118	38	69%
Inverclyde	10	22	10	100%
Midlothian	28	52	23	82%
Moray	15	33	12	80%
North Ayrshire	15	29	13	87%
North Lanarkshire	32	47	26	81%
Orkney Islands	23	43	20	87%
Perth & Kinross	48	112	43	90%
Renfrewshire	37	67	26	70%
Scottish Borders	40	68	23	57%
Shetland Islands	12	24	7	58%
South Ayrshire	19	37	15	79%
South Lanarkshire	101	119	69	68%
Stirling	36	66	27	75%
West Dunbartonshire	20	41	17	85%
West Lothian	16	32	14	88%
Unknown	12	12	12	100%
Total	1,133	2,089	878	77%

# Table 7.1: Charge point usage by local authority, August 2017

Local Authority	Number of charging sessions	Total Electricity used (kWh)	Average Electricity used (kWh)	Average of Duration (hh:mm:ss)
Aberdeen City	2,041	16,398.1	8.1	07:39:47
7kW	750	5,032.8	6.7	12:24:10
22kW	597	4,554.5	7.7	09:56:03
50kW	690	6,795.5	9.8	00:35:58
Unknown	4	15.2	3.8	03:38:45
Aberdeenshire	1,259	11,834.8	9.4	02:03:26
7kW	157	926.9	5.9	11:25:07
22kW	52	1,742.6	34.9	05:04:46
50kW	1,050	9,165.3	8.7	00:31:15
Angus	693	6,311.4	9.2	04:39:47
3kW/7kW	23	415.3	18.1	06:10:39
7kW	296	2,324.8	7.9	07:34:58
22kW	196	1,558.3	8.0	02:57:46
50kW	178	2,012.9	11.3	01:30:53
Argyll & Bute	524	4,543.5	8.7	01:40:29
7kW	39	176.2	4.5	01:17:29
22kW	174	1,383.6	8.0	03:13:54
50kW	311	2,983.6	9.6	00:50:56
Clackmannanshire	315	2,732.8	8.7	06:40:41
3kW/7kW	2	0.2	0.1	00:03:30
3kW/22kW	9	23.1	2.6	00:53:47
7kW	149	783.4	5.3	12:49:49
22kW	63	850.4	13.5	02:15:36
50kW	92	1,075.7	11.7	00:30:59
Dumfries & Galloway	259	2,415.8	9.4	01:25:59
7kW	84	432.0	5.3	01:50:41
22kW	18	216.7	12.0	05:42:23
50kW	157	1,767.1	11.3	00:43:50
Dundee City	7,410	64,339.6	8.7	03:41:47
3kW/22kW	43	320.4	7.5	07:56:52
7kW	1,828	11,076.7	6.1	11:14:09
22kW	646	13,337.0	20.7	07:31:00
50kW	4,893	39,605.5	8.1	00:21:51
East Ayrshire	397	3,527.8	9.0	01:22:59
7kW	114	685.6	6.3	02:56:29
22kW	27	159.9	5.9	03:10:16
50kW	256	2,682.3	10.5	00:31:51
East Dunbartonshire	160	1,884.6	11.8	00:50:08
7kW	4	45.6	11.4	02:44:45

# Table 7.2: Local authority usage by charge point type, August 2017

			1	
22kW	31	323.0	10.4	01:42:33
50kW	125	1,516.0	12.1	00:33:28
East Lothian	784	6,618.3	8.5	02:53:56
7kW	183	1,002.2	5.5	10:05:57
22kW	50	32.2	0.7	03:29:32
50kW	551	5,583.9	10.2	00:28:20
East Renfrewshire	493	4,100.3	8.3	00:49:16
7kW	111	408.1	3.7	00:55:52
22kW	112	305.4	2.8	01:32:25
50kW	270	3,386.7	12.5	00:28:59
Edinburgh, City of	2,782	23,265.0	8.5	05:55:49
3kW/22kW	51	373.5	7.9	03:33:13
7kW	781	5,256.9	6.8	13:16:32
22kW	820	6,199.9	7.7	06:24:50
50kW	1,130	11,434.8	10.2	00:38:34
Eilean Siar	214	2,036.8	9.6	01:26:44
3kW/7kW	5	28.7	5.7	05:09:24
7kW	20	196.3	9.8	05:50:51
22kW	22	121.3	5.5	00:42:11
50kW	167	1,690.5	10.2	00:53:54
Falkirk	803	7,698.0	9.6	06:11:10
7kW	186	1,357.7	7.3	14:53:43
22kW	89	619.5	7.0	22:05:15
50kW	528	5,720.8	10.9	00:23:38
Fife	2,987	23,818.7	8.0	08:08:51
3kW/7kW	18	273.6	15.2	04:39:37
7kW	1,966	13,822.5	7.1	11:43:33
22kW	115	935.8	8.2	06:14:52
50kW	888	8,786.8	10.0	00:33:12
Glasgow City	2,776	21,886.8	7.9	04:24:47
7kW	1,379	9,093.3	6.6	05:53:47
22kW	892	7,100.3	8.0	04:13:17
50kW	505	5,693.2	11.3	00:43:12
Highland	1,279	15,166.3	11.9	02:48:44
7kW	120	716.4	6.0	21:15:53
22kW	84	693.6	8.3	02:36:50
50kW	1,075	13,756.2	12.9	00:45:23
Inverclyde	479	4,062.5	8.5	03:17:00
3kW/7kW	73	411.1	5.7	03:01:13
7kW	39	233.5	6.0	17:29:12
22kW	210	1,304.3	6.2	02:44:50
50kW	157	2,113.6	13.5	00:33:22
Midlothian	894	8,025.2	9.0	03:26:08
7kW	242	1,303.3	5.4	07:32:24

22kW	160	1,149.6	7.2	06:13:24
50kW	492	5,572.3	11.3	00:31:15
Moray	251	2,005.5	8.0	05:46:22
7kW	155	771.7	5.0	08:33:16
22kW	59	667.8	11.3	01:39:31
50kW	37	566.0	15.3	00:45:23
North Ayrshire	395	2,952.0	7.5	03:35:51
7kW	81	497.9	6.1	05:25:27
22kW	137	760.1	5.6	06:24:46
50kW	177	1,694.0	9.6	00:34:52
North Lanarkshire	724	5,632.3	7.8	02:37:42
7kW	351	2,771.4	7.9	04:30:33
22kW	122	860.1	7.0	01:47:37
50kW	251	2,000.9	8.0	00:24:11
Orkney Islands	1,185	9,271.7	7.9	02:08:33
7kW	229	1,656.7	7.2	04:50:48
22kW	398	2,840.5	7.2	02:43:56
50kW	558	4,774.5	8.6	00:37:07
Perth & Kinross	1,788	18,423.2	10.3	01:58:15
7kW	325	2,843.3	8.8	04:18:50
22kW	292	2,836.1	9.7	04:39:20
50kW	1,171	12,743.7	10.9	00:38:59
Renfrewshire	1,349	9,602.0	7.2	04:46:12
7kW	475	2,597.2	5.5	07:29:34
22kW	284	2,030.4	7.2	09:04:11
50kW	590	4,974.4	8.5	00:29:28
Scottish Borders	644	5,330.0	8.3	02:09:52
3kW	1	-	-	00:10:00
3kW/7kW	26	244.7	9.4	07:54:09
7kW	109	567.2	5.3	07:25:28
22kW	48	430.9	9.0	03:51:33
50kW	460	4,087.1	8.9	00:25:58
Shetland Islands	107	746.1	7.0	01:23:05
7kW	59	373.5	6.4	02:09:29
50kW	48	372.6	7.8	00:27:00
South Ayrshire	592	5,106.9	8.7	05:44:01
3kW/7kW	8	124.0	15.5	16:59:45
7kW	137	736.3	5.5	15:02:47
22kW	203	1,726.5	8.5	04:18:53
50kW	203	2,520.0	10.3	00:35:58
South Lanarkshire	1,603	12,860.0	8.0	02:45:02
7kW	841	5,186.1	6.2	04:30:38
22kW	159	1,357.0	8.6	01:56:40
50kW	603	6,316.9	10.5	00:30:40

Stirling	1,164	11,801.1	10.2	03:10:16
7kW	202	1,384.0	6.9	10:22:10
22kW	348	3,776.6	10.9	03:31:36
50kW	614	6,640.4	10.9	00:35:23
West Dunbartonshire	347	2,565.8	7.4	05:10:03
7kW	192	1,357.9	7.1	07:22:22
22kW	139	1,146.8	8.3	02:38:55
50kW	16	61.2	3.8	00:25:56
West Lothian	665	9,162.7	13.9	03:19:56
3kW/7kW	99	718.5	7.4	04:22:16
7kW	27	227.6	8.8	13:34:51
22kW	323	5,995.6	18.6	04:02:07
50kW	216	2,221.0	10.3	00:34:15
Unknown	70	303.8	4.3	19:29:00
Total	37,433	326,429.4	8.8	04:12:56

Tables 7.1 and 7.2 shows the breakdown of charging usage by local authorities in which charging sessions for August 2017. The local authorities with the greatest number of charging sessions were Dundee City (7,410), Fife (2,987) followed by City of Edinburgh (2,782) in August 2017.

In August 2015, 68% of charge points were used at least once in that month, this proportion rises to 75% for August 2016 and then to 77% for August 2017. Tables 7.1 shows the number of charge points which were used at least once. In August 2017, all charge points were used at least once in 2 local authorities (East Renfrewshire & Inverclyde). The authorities with the lowest percentage of charge points used at least once were Argyll & Bute (43%), East Ayrshire (54%), and Scottish Borders (57%). In total there was only 1 authority where less than half of the charge points were used at least once in August 2017

## 8. Rapid charge point usage, August 2017

Figure 8.1 shows the location of all the rapid charge points (43kW+) at the end of August 2017 in Scotland. The rapid charge points are located across Scotland to support Transport Scotland's plan to introduce rapid chargers at 35 mile intervals along Scottish trunk roads<sup>2</sup>. Table 6.1 indicates that all of the top 10 most frequented charge points were rapid chargers in August 2017 (as was the case in August 2016). In this month almost half of all charging sessions (49%) took place at a rapid charge point compared to 42% the year before. This is despite the fact that rapid chargers only make up 16% (19% in August 2016) of charge points in the ChargePlace Scotland network. Table 5.1 shows that the average charging duration at a rapid charge point was 32 minutes which is in line with how a network of rapid chargers may be used - a Nissan Leaf is able to charge to 80% in 30 minutes using a rapid charger. Table 8.1 indicates that a 2014 Nissan Leaf would have been able to travel 40.8 miles on the average amount of electricity consumed by rapid charge points in August 2017 - the approximate journey length when driving from Edinburgh Airport to Glasgow city centre. Table 8.1 indicates that the average duration at a rapid charge point was less than one hour for all but one authority (Angus).

<sup>&</sup>lt;sup>2</sup> Transport Scotland (2013). Plans to introduce further electric vehicle rapid charging infrastructure have been welcomes

Local Authority	Number of Charging Sessions	Total Electrcity used (kWh)	Average Electricity (kWh)	Average Duration (hh:mm:ss)
Aberdeen City	690	6,795.5	9.8	00:35:58
Aberdeenshire	1,050	9,165.3	8.7	00:31:15
Angus	178	2,012.9	11.3	01:30:53
Argyll & Bute	311	2,983.6	9.6	00:50:56
Clackmannanshire	92	1,075.7	11.7	00:30:59
Dumfries & Galloway	157	1,767.1	11.3	00:43:50
Dundee City	4,893	39,605.5	8.1	00:21:51
East Ayrshire	256	2,682.3	10.5	00:31:51
East Dunbartonshire	125	1,516	12.1	00:33:28
East Lothian	551	5,583.9	10.2	00:28:20
East Renfrewshire	270	3,386.7	12.5	00:28:59
Edinburgh, City of	1,130	11,434.8	10.2	00:38:34
Eilean Siar	167	1,690.5	10.2	00:53:54
Falkirk	528	5,720.8	10.9	00:23:38
Fife	888	8,786.8	10	00:33:12
Glasgow City	505	5,693.2	11.3	00:43:12
Highland	1,075	13,756.2	12.9	00:45:23
Inverclyde	157	2,113.6	13.5	00:33:22
Midlothian	492	5,572.3	11.3	00:31:15
Moray	37	566	15.3	00:45:23
North Ayrshire	177	1,694	9.6	00:34:52
North Lanarkshire	251	2,000.9	8	00:24:11
Orkney Islands	558	4,774.5	8.6	00:37:70
Perth & Kinross	1,171	12,743.7	10.9	00:38:59
Renfrewshire	590	4,974.4	8.5	00:29:28
Scottish Borders	460	4,087.1	8.9	00:25:58
Shetland Islands	48	372.6	7.8	00:27:00
South Ayrshire	244	2,520	10.3	00:35:58
South Lanarkshire	603	6,316.9	10.5	00:30:41
Stirling	614	6,640.4	10.9	00:35:23
West Dunbartonshire	16	61.2	3.8	00:25:56
West Lothian	216	2,221	10.3	00:34:15
Total	18,500	180,315.5	9.8	00:32:11

 Table 8.1: Breakdown of rapid charge point usage by local authority for August 2017



Figure 8.1: Rapid charge point (43kW+) and all other charge points types in Scotland as of August 2017

All other
 Rapid

## 9. Conclusions

There has been a large increase in the use of the ChargePlace Scotland charging network between August 2013 and August 2017. The number of charging sessions increased by 5,947% (619 to 37,433 sessions). The percentage of the ChargePlace Scotland network where charge points were used at least once has increased year on year from 55% in August 2014 to 77% in August 2017.

There has been a 1,425% rise in the number of plug-in car and van grant licensed vehicles between the end of Q2 2013 and Q2 2017. At the end of Q2 2013 there were 6,226 licensed vehicles which were eligible to receive the plug-in car and van grants in the UK of which 362 were licensed in Scotland. By the end of Q2 2016 the number of licensed vehicles which were eligible to receive the plug-in car and van grant had risen sharply to 104,073. Of these, 5,521 (5%) vehicles were registered in Scotland compared to 92,976 in England and 2,199 in Wales.

Overall, the ChargePlace Scotland network experienced large growth in usage between August 2013 and August 2017. In particular there has been large growth in the use of rapid charge points. In August 2017 almost half of all charging sessions (49%) took place at a rapid charge point compared to 42% the year before. This is despite the fact that rapid chargers only make up 16% (19% in August 2016) of charge points in the ChargePlace Scotland network. The average charging duration has fallen between August 2013 and August 2017 which is likely to be due to the increased use of fast and rapid charge points (rapid charge points had an average charging duration of just 32 minutes in August 2017).