Department for Transport

Electric Vehicle Charging Device Statistics July 2020

About this release

This release presents experimental statistics on the number of publicly available electric vehicle charging devices in the UK, broken down by Local Authority. Data is provided by the electric vehicle and charging point platform Zap-Map.

The coronavirus pandemic is likely to have had a small impact on figures where data coincides with the UK lockdown period.

The next quarterly report is scheduled for release in November 2020.

In this publication

Charging devices and chargepoints

A charging device is a unit capable of charging the batteries of plug-in electric vehicles. Devices are classified by their power output, and each device may offer one or more connecting points. The term 'chargepoint' is also sometimes used, including in previous statistical publications from DfT. This may refer to either a single device or a number of connectors on a device which can be used simultaneously.

Key findings

- At 1 July 2020, there were 18,265 public electric vehicle charging devices available in the UK. Of these, 3,206 were rapid devices.
- Since 2015, the number of public charging devices has grown by nearly five times to July 2020, with an 11% increase in the year to date. Rapid charging devices have also grown quickly, increasing by 363% since 2015.
- In the second quarter of 2020, 318 more devices were available in total, up 2% on the previous quarter. 99 of these were rapid devices.

Chart 1 Growth in UK public charging devices since 2015 (table EVCD_02)

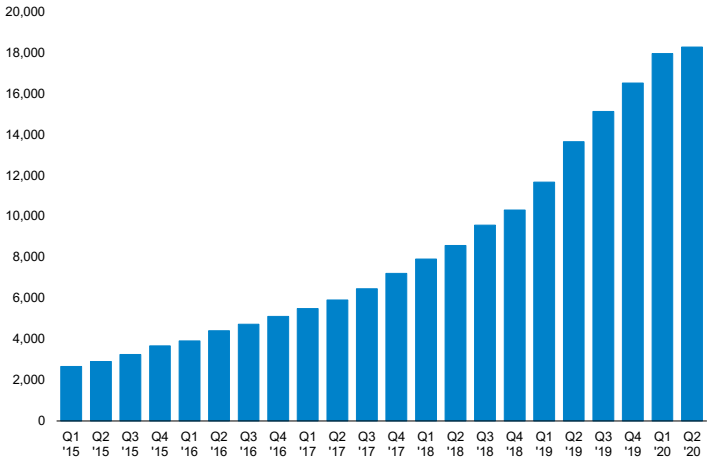
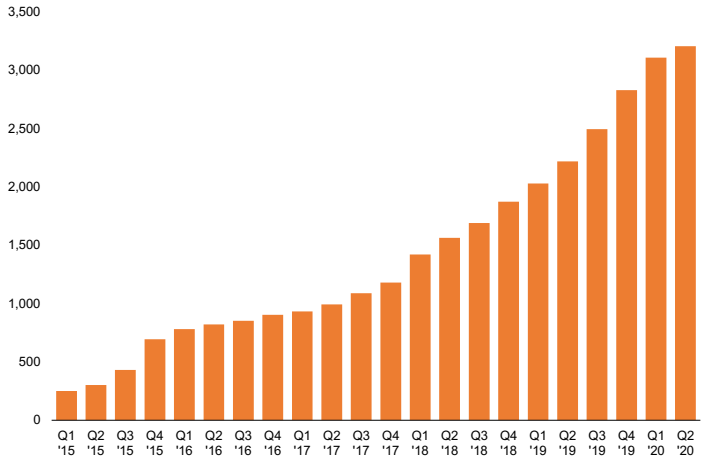


Chart 2 Growth in UK public rapid charging devices since 2015 (table EVCD_02)



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Regional distribution of charging devices

There is uneven geographical distribution of charging devices within the UK. Some UK local authorities have bid for UK Government funding for charging devices, and others have not. Most of the provision of this infrastructure has been market-led, with individual charging networks and other businesses (such as hotels) choosing where to install devices.

Charts 2 and 3 show that London has the highest level of charging device provision per 100,000 of population and is slightly above average in terms of rapid charging device provision. Scotland is above average in total devices per 100,000 and has the highest level of rapid device provision.

Chart 3 Public charging devices per 100,000 of population by UK country and region (table ECVD_01)

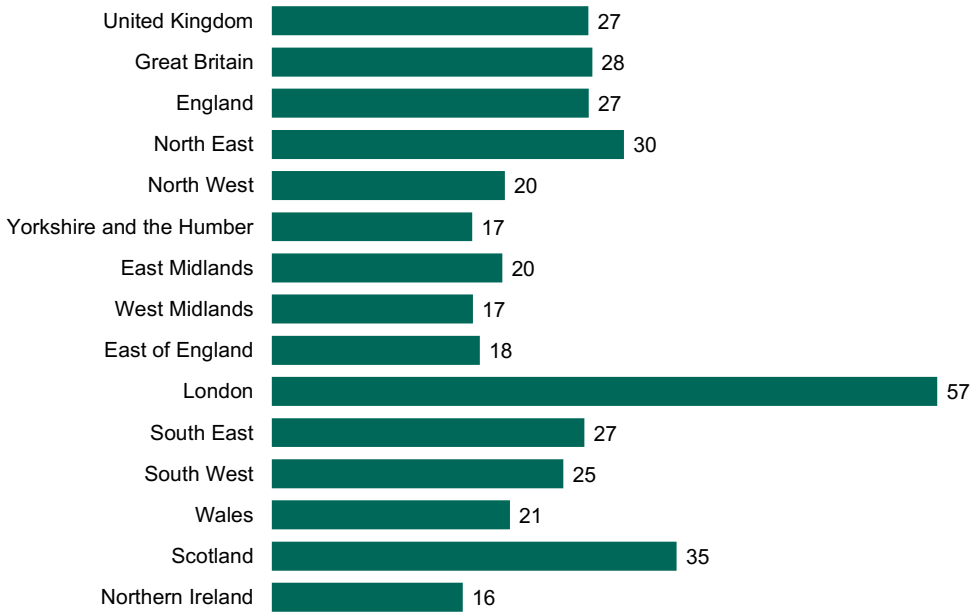
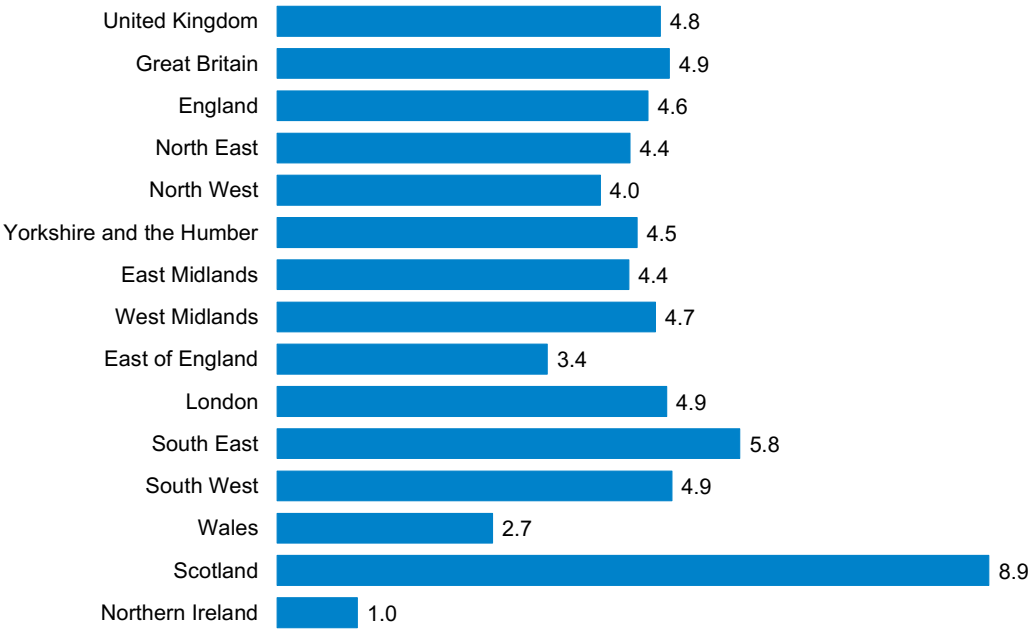
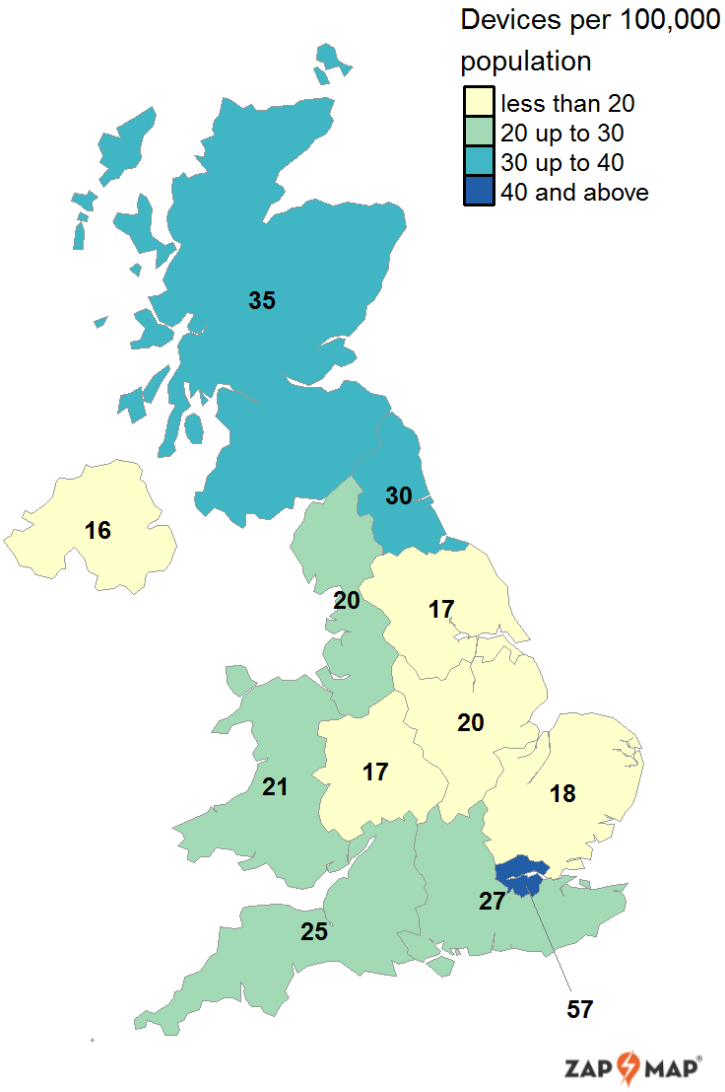


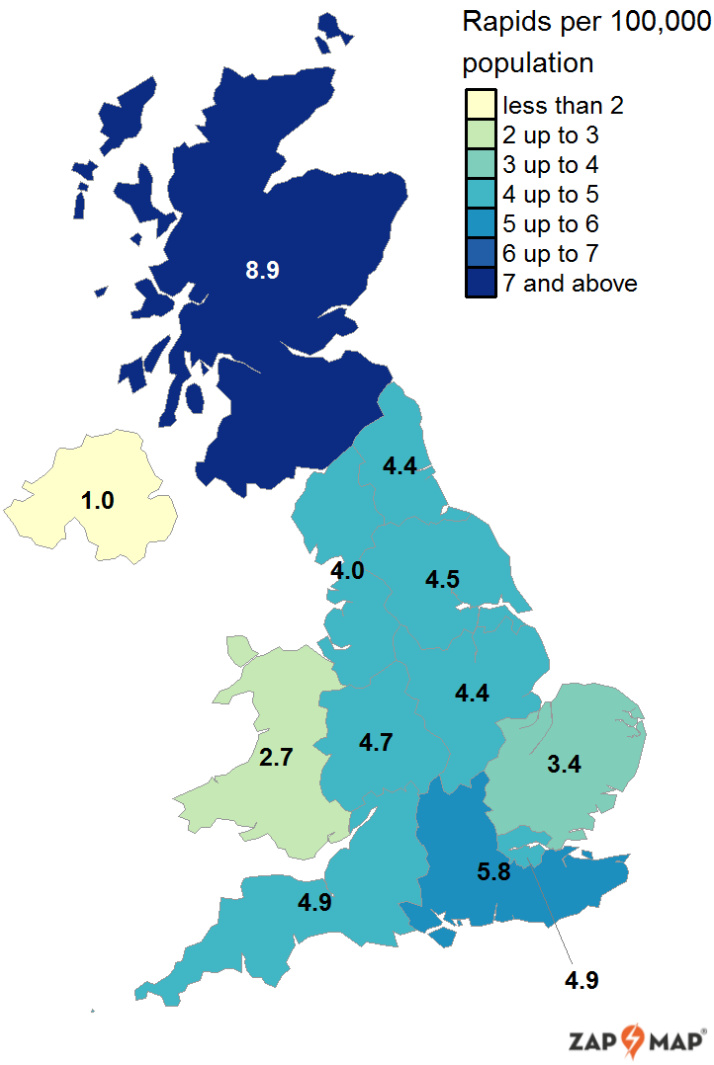
Chart 4 Public rapid charging devices per 100,000 of population by UK country and region (table ECVD_01)



Map 1 Public charging devices per 100,000 of population by UK region



Map 2 Public rapid charging devices per 100,000 of population by UK region



Source: Zap-Map, Office for National Statistics licensed under the Open Government Licence v.3.0

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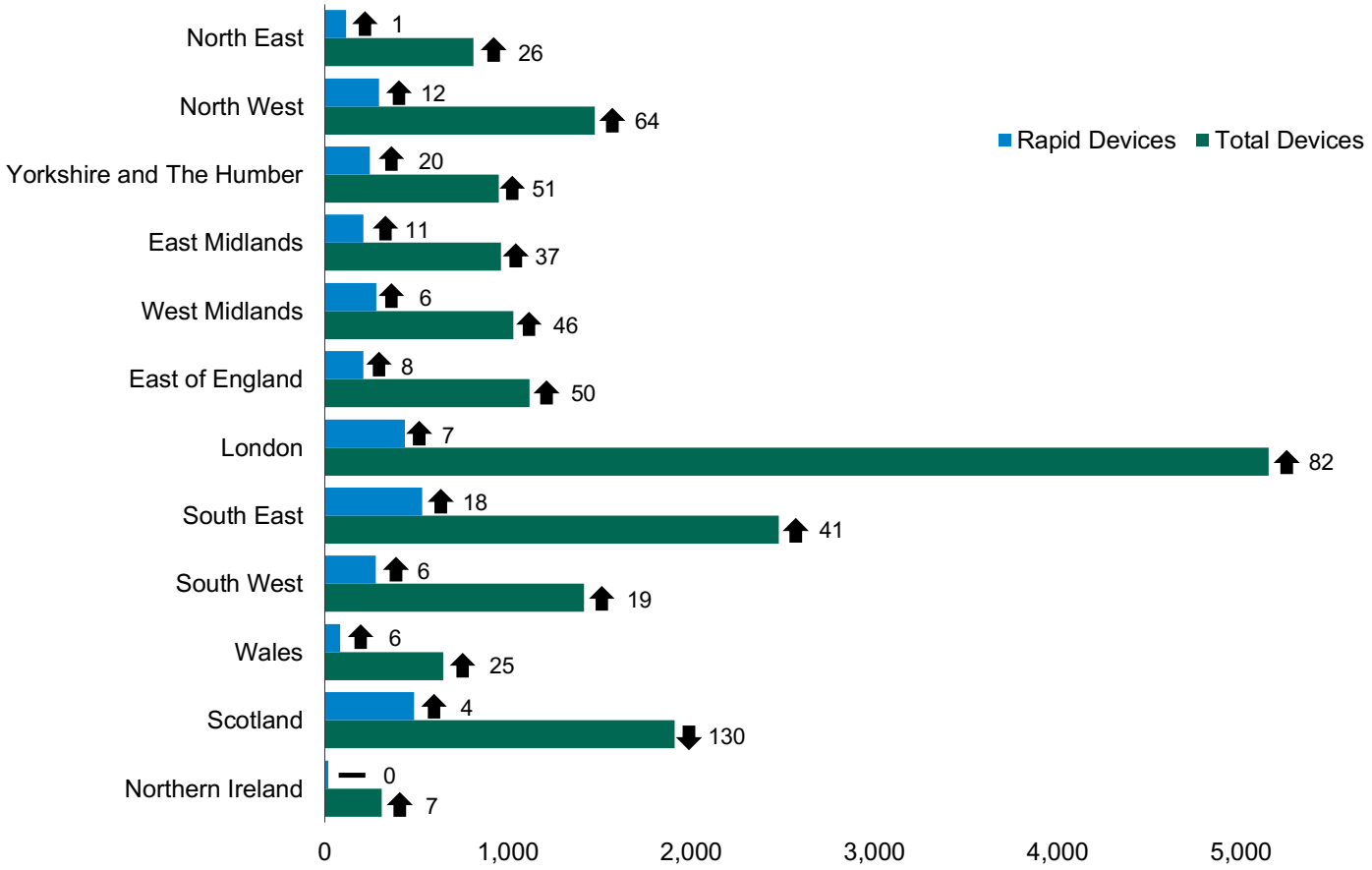
Charging devices have largely been funded by private sector investment, however a number of the devices have been Government funded via a number of grant schemes operated by the Office for Low Emission Vehicles (OLEV). OLEV also provides grant funding for private domestic charging and workplace charging devices, however these types of devices are not included within these statistics as they are not necessarily available to the general public.

Table EVCD_01 provides a breakdown of public charging devices in each local authority in the UK whilst Table EVCD_02 shows the change in the number of devices since 2015. These tables are published alongside this report.

An interactive map of this data is available at: maps.dft.gov.uk/ev-charging-map

Chart 5 Public charging devices by region with quarterly change (table ECVD_01)



Despite Scotland having an above average number of charging devices per 100,000 of the population, the number of devices available decreased by 130 to 1,910 over the quarter. This is an impact of coronavirus and the lockdown period where charging devices have been switched-off due to the sites being inaccessible[1].

In every other region, the number of charging devices has increased across the quarter to July, despite the coronavirus lockdown period. London saw the largest increase with 82 more devices available during the second quarter of 2020.

Background notes and limitations of data

This is a quarterly statistical release on electric vehicle charging devices. We would welcome feedback from users of the statistics. This can be provided via environment.stats@dft.gov.uk.

Charging device location data is sourced from the electric vehicle charging platform Zap-Map and represents devices reported as operational at midnight, 1 July 2020. Zap-Map reports that they cover 95% of publicly accessible devices. True counts are therefore likely to be higher and we have no way of assessing whether data coverage is better in some geographical areas than others.

[1] ChargePlace Scotland: https://chargeplacescotland.org/guidance/covid-19-network-access-update/

There are no other sources with such comprehensive coverage against which we could verify the Zap-Map devices. As of 3 August 2020, the National Chargepoint Registry (NCR) covers 11,085 devices so cannot be used to verify the Zap-Map counts. The NCR, whilst covering fewer devices, does contain more detailed information on each charging device including the exact location and number of connectors.

'Total devices' represent publicly available charging devices at all speeds. 'Rapid devices' are those whose fastest connector is rated at 43kW and above. A device can have a number of connectors of varying types and speeds. Some devices can charge only one car at a time, and some can charge more than one simultaneously. The Zap-Map data does not indicate how many cars can be charged by a single device, therefore the statistics count the device itself. There is often more than one device at a location. Charging capability in any given location (the number of cars able to be charged at the same time) will be higher than the number of devices.

Population figures by Local Authority are sourced from the Office for National Statistics Population Mid Year Estimates for 2019. The Local Authority administrative geographies are from April 2020, available from the ONS Geography Portal.

After further quality assurance and methodology testing with the data supplier, the methodology for for counting the number of devices for previous quarters has been updated. Data after Q3 2019 reflects charging devices which were available at the end of each quarter. Data previous to this uses charging devices which were available at Q3 2019, but were installed in previous quarters before this. Subsequently, these figures do not include any devices installed before Q3 2019 that were decomissioned or unavailable at the time.

Experimental Statistics. These quarterly statistics are badged as Experimental Statistics. Users should be aware of the status and cautions of these series, which will vary for each statistic and will be explained within each publication. The statistics are new but still subject to testing in terms of their volatility and ability to meet customer needs. They do not meet the rigorous quality standards of National Statistics, for example with respect to partial coverage. Further details on the limitations of Experimental Statistics can be found at: https://www.ons.gov.uk/methodology/topicsandstatisticalconcepts/guidetoexperimentalstatistics.

This quarterly statistical series complements three earlier releases presenting statistics on observed usage and charging patterns for electric vehicle charging devices funded under various OLEV schemes: Local authority rapids; Public sector fasts; and Domestics.

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