

# EV Charging Infrastructure in Scotland

A “State of the Nation” by Matt Jackson, SWARCO eVolt | June 2020

Electric Vehicle (EV) charging infrastructure has come a long way in Scotland over the last ten years. Recent data published by the Department for Transport (DfT), with raw data from Office of National Statistics (ONS) and ZapMap, place Scotland at the top of the table for all EV Charge Points (EVCPs) and Rapid charge points – i.e. where the fastest connector is at least 43kWh.<sup>1</sup>

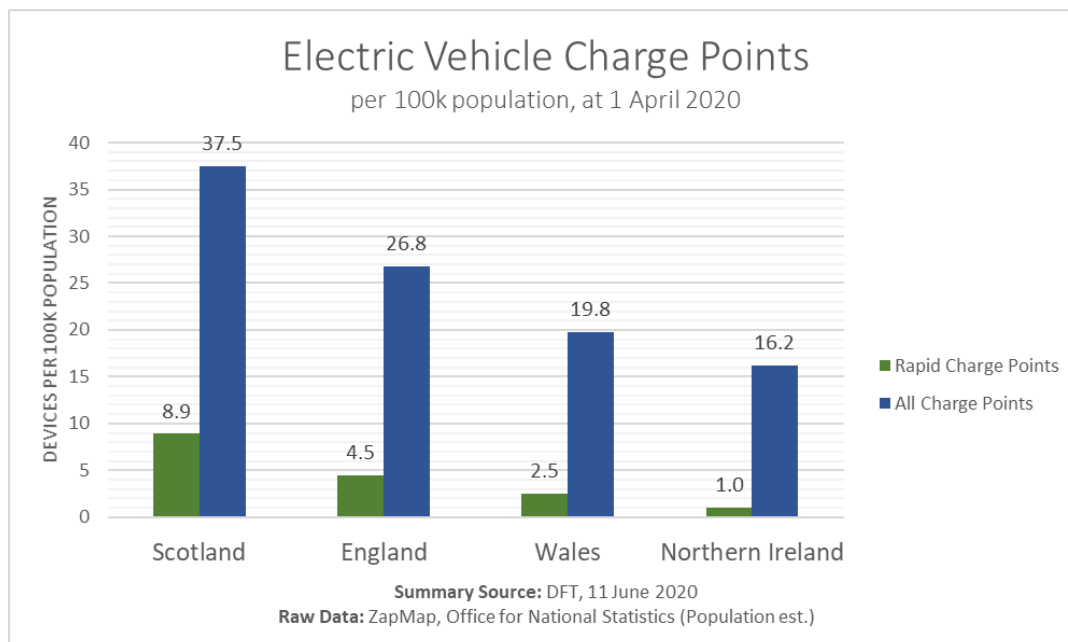


Figure 1 - Looking across the UK, it's clear that Scotland has taken the lead in terms of EV infrastructure provision.

This is undoubtedly an incredible achievement for Scotland, highlighting the excellent progress that has been made. We've also seen significant growth in the Battery Electric Vehicle (BEV) uptake, with recent figures indicating that, like infrastructure, Scotland is leading the growth in adoption, too.<sup>2</sup>

Rapid chargers are commonly linked with journey charging. In this respect, the data highlights that Scotland has nearly double the number of chargers per 100,000 population compared to England- we aren't anywhere near finished!

Whilst this is a great story, we need to ensure that Scotland does not become complacent with the provision of infrastructure. Breaking down the data a little more, there's evidence of disconnect between some local authority areas.

Low population combined with early action and adoption on the islands, mean that they shine for provision all types of EVCPs. Meanwhile, some areas in the central belt are well below the high bar that has been set.

We need to work together to ensure that the whole population have access to good quality, EV charging infrastructure. Remember, not everyone has access to a home EVCP. Even for those that do, we need to be able to support quick, easy-to-use and most importantly – reliable - journey charging for longer trips.

<sup>1</sup> DfT Publication, 01 June 2020 - <https://www.gov.uk/government/statistics/electric-vehicle-charging-device-statistics-april-2020>

<sup>2</sup> DfT Vehicle Licensing Statistics - <https://www.gov.uk/government/collections/vehicles-statistics> Note: Scotland-specific statistics for some tables which aren't published on the website are available upon request by emailing [vehicles.stats@dft.gov.uk](mailto:vehicles.stats@dft.gov.uk)

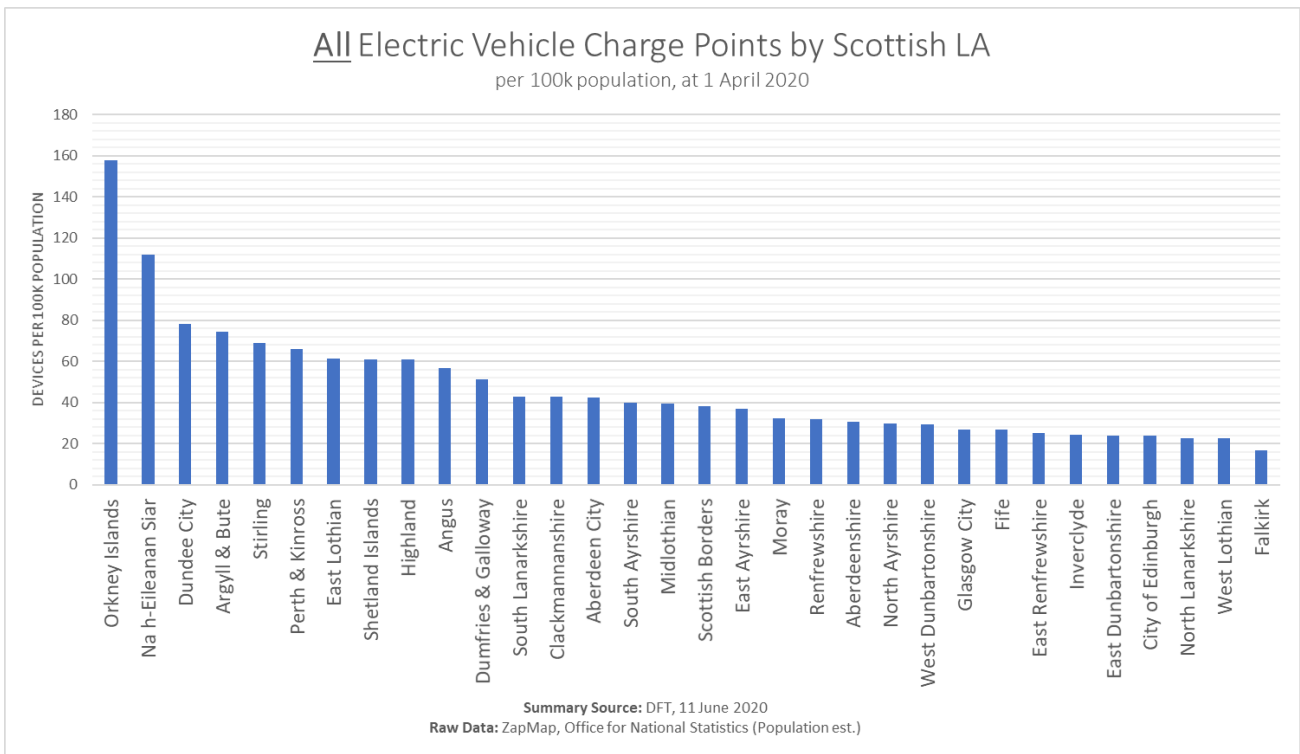


Figure 2 – The islands shine for all chargepoints, but some areas aren't there yet.

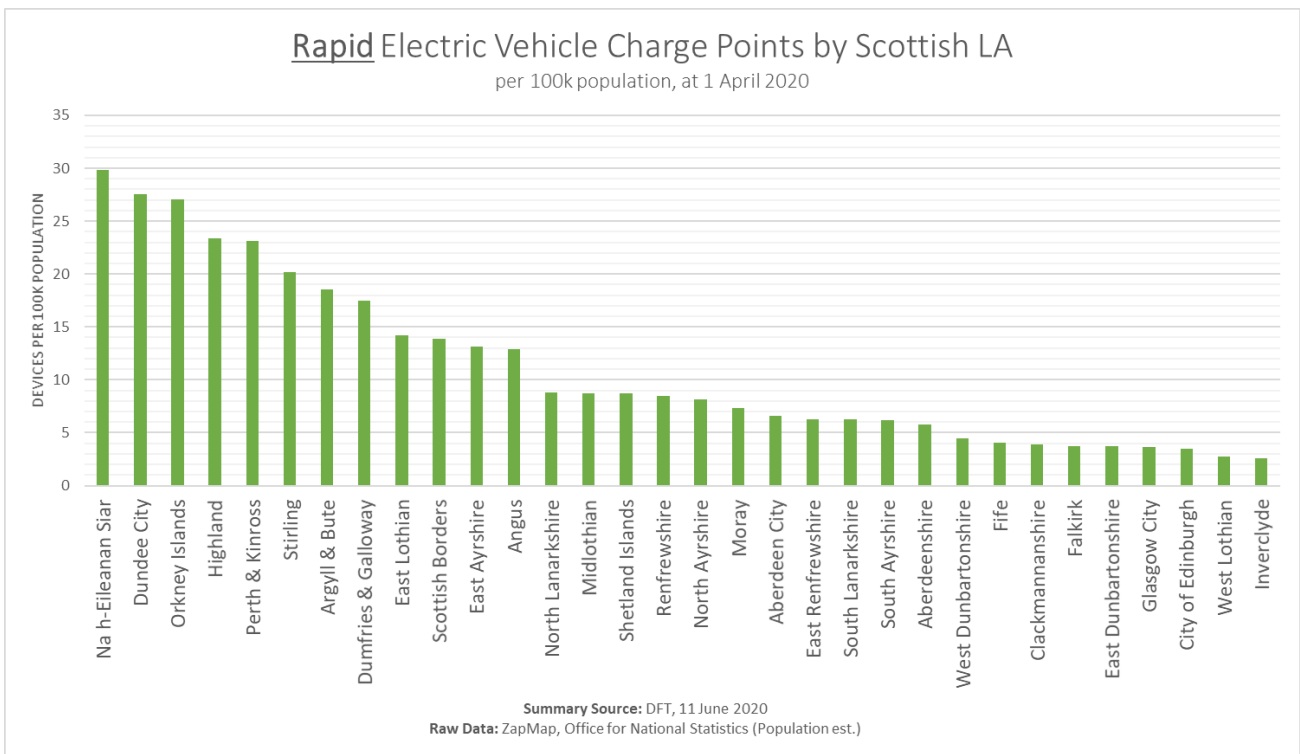


Figure 3 – A lot of areas are well ahead for journey charging, with gaps evident mainly in the central belt.

Before we celebrate, we need to understand that there are several risks remaining when it comes to the continued rollout of EVCPs in Scotland. Namely;

- **Complacency** – Whilst it's clear that Scotland is currently well ahead of the rest of the UK, we can't rest with that as our benchmark. We must continue to strive for the best – best price, best efficiency, best customer service and best reliability. There are some exemplar European projects- could we learn from these, also?

- **Stranded Assets** – This is a two-fold risk.
  - 1) Poor technology or location decisions can result in low utilisation. For example, remote location slow chargers with no site amenities or on strategic road routes, where rapid charging may be better suited to travellers not wanting to break their journeys for extended periods.
  - 2) Low utilisation can lead to hosts allowing maintenance agreements to lapse. This in turn impacts the performance of the chargers and time to respond to a fault, through search for ad-hoc service providers. The key to increasing EV adoption is confidence in the reliability and accessibility of charging infrastructure – out-of-service chargers cause more harm than a single missed charge.
- **Misunderstanding of EVCPs** – Much media coverage assumes EVCPs and charging site requirements are the same as petrol pumps/stations.<sup>3</sup> Whilst there is a place for equivalent EV rapid charging hubs, this is only part of the solution. We also need reliable charging infrastructure to be available in the areas of our communities that allow drivers to top up a charge (or ‘graze’) without making an additional journey to do so. Workplaces, retail and leisure locations, country parks, community centres and similar.

If we consider these three main risks, whilst continuing to develop the network, we’ll see Scotland remain at the forefront of EVCP provision and work our way up the European and worldwide league table of transport electrification. There’s a climate emergency upon us.

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<sup>3</sup> Here’s an example from just last week! <https://www.thisismoney.co.uk/money/cars/article-8410825/Electric-vehicle-charging-devices-outnumber-petrol-stations-two-one.html>