



Dundee City Council - Case Study

Dundee City Council first launched 100% electric vehicles into its Fleet in 2011 with the introduction of the first 4 cars and chargers at one of its depots. Since the successful launch of the EV into the council's fleet it has grown to be one of the largest EV fleets of any Local Authority in the UK. Dundee City Council has 114 electric vehicles which represents 25% of its small van and car fleet, with an ambition to have the rest of the fleet fully electric by 2025.

As the council continues to grow its own electric vehicle infrastructure, it has also worked with partners across the city including the University of Dundee, NHS Tayside, Dundee and Angus College and local taxi companies. The aim of which was to have comprehensive but shared infrastructure across the city and region that would support the uptake of council fleet and the wider public.

As the number of EVs continued to grow it was decided to embark on an extremely ambitious infrastructure project that would not only meet the needs of all the fleets and residents of the city but also have the capacity to support the large scale adoption of electric vehicles in the upcoming years. This would put the city at the forefront of EV charging technology not only in the UK but also in Europe and would allow the city to provide data and knowledge for other such projects in the UK and beyond.

Based on this information the council embarked on designing and building three EV multi-charging hubs across the city. Each charging hub consisting of 6 x 50kw rapid charging units and 3-4 x 22kw charging units.



The city's main charging hub was opened in July 2018 and was described recently at a European EV forum as "A globally significant development in electric vehicle charging" the hub consists of 6 x 50kw and 3 x 22kw charging units and is complemented with solar canopies and battery storage renewables.

With it being the first of its kind in the UK, the charging hub involves renewable energy optimisation. This process ensures the best use of the on-site photovoltaic (PV) which provides 36kw of power with the battery renewable solution allowing 90kWh storage capacity. The system allows the EV hub to reduce demand from the national grid at peak times and being in the position to take advantage of off-peak charging tariffs. The site has also been future proofed to allow increased battery storage capacity and more powerful chargers.

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The latest weekly data at the two most recently opened charging hubs shows the average daily charging session for each unit is 15 rapid sessions a day. The stat highlights the success of the EV hub concept and the demand in the city. Given the significance of this hub and the large number of daily charging sessions, Dundee City Council releases their monthly charging figures onto an open data platform allowing world access to the city charging data. By releasing this data, it enables universities and cities to understand public/private charging patterns that are emerging through Dundee's extensive EV infrastructure and increasing EV adoption.

Along with providing Dundee with charging infrastructure the council understood the requirement to provide regional infrastructure especially given that 40,000 weekly journeys into Dundee started from outside the city.

Working in partnership with surrounding local authorities, the council developed the concept of EV "charging gateways" which links up the city's charging infrastructure with our neighbouring region. Dundee City Council has installed 4 x 50kw chargers and 14 X 22kw chargers into the surrounding region allowing an EV charging network that is seamless and without boundaries. 50kw chargers were essential to providing rapid charging to the taxi industry with EV taxis daily trips not confined to the city limits.

Awards won for Princes Street

- EVisionary European City Award 2018
- Scottish Transport Awards 2019- Contribution to Sustainable Transport
- ASPE 2019 Best Renewable Energy Initiative

Client feedback

"In Dundee we have one of the most developed EV infrastructures in Europe, this can only be achieved by having an excellent construction company involved, Boyd Brothers are that company"

"Building and installing innovative and complex EV projects like our Charging hubs which include solar and battery storage technologies requires a business that has highly skilled, resilient workforce "

Fraser Crichton – Corporate Fleet Operations Manager, Dundee City Council

N.B The above was compiled directly from the Drive Dundee Electric website, <https://www.drivedundeeelectric.co.uk/> Please note that all EV data is constantly updated, resulting in numbers and date charging sessions changing over time (especially during lockdown).