Oxfordshire Park & Charge

Case Study:

Optimising the Charging infrastructure for Park & Charge Oxfordshire.

Project Summary

Project Name:
Oxfordshire Park & Charge

Location:
Oxfordshire

Completed:
2022

Contractor:
EZ-Charge

Product Used:
20x 630 Amp Feeder Pillar

Background:

Lucy Zodion recently worked alongside EZ-Charge and Oxfordshire County Council to provide 20 pre-wired EV feeder pillars: which will support the requirements of 250 new charging points across 20 car parks, throughout Oxfordshire.

With over one third of UK car owners having no access to off-street parking, many Local Authorities and Car Park Operators are looking to provide convenient, affordable, and user-friendly EV charging infrastructure to break down the common barriers which cause range anxiety and hinder wider EV adoption.

For Oxfordshire, along with many other local authorities, barriers included the perception of a shortfall in charging infrastructure, reliability of existing charging provisions, and failure to meet expectations (such as charger speed).

The £5.2 million Park and Charge Oxfordshire scheme, grant funded by Innovate UK, aimed to make Oxfordshire one of the most connected counties in the UK.

Solution:

To meet the demand of the 22kW dual chargers specified, Lucy Zodion provided a three-door feeder pillar cabinet (at each site) to house the power infrastructure and provide controlled access to the DNO equipment through its own dedicated door, increasing on-site safety.

With a minimum of 12 charge points per car park, and capacity to upgrade to 16, our feeder pillars (which currently run at 200 amp) were future-proofed for additional demand - with the option to go up to 630 amp – which will ensure we can cater for charge point supplies from fast (7kW) to ultra-rapid (150kW) – subject to load balancing.

The feeder pillars were coated in anti-graffiti paint and utilise an anti-vandal locking mechanism to combat any anti-social activity, which, due to their size and the nature of where they are installed, can be problematic.

To aid the installation process, Lucy Zodion delivered the root section of the pillars before any civil works were undertaken, and before delivery of the pillar itself. Following the initial pilot scheme, manufacturing processes were streamlined; with each site identical in requirements, simplifying the manufacturing process, and assisting the speed of installation across all sites.

Results:

The Park & Charge Oxfordshire scheme has been highly successful with over 200,000 kWh of utilisation recorded to-date, powering over 700,000 miles. However, perhaps the most important performance indicator is EV-ownership – which is on the rise across the county.

In fact, as many as one in three new cars ordered in Oxfordshire are EV versus the national average of one in ten. We're extremely proud to report that Oxfordshire recently won an EVIE (Electric Vehicle Innovation and Excellence) Award - for 'Public Sector Infrastructure Strategy of the Year'.

Llewelyn Morgan, Head of Innovation at Oxfordshire County Council's iHub, said: "Interest in electric vehicle ownership is increasing in the county, but one factor holding people back was the inability to easily charge them outside their home, with about 35 per cent of residents having no access to off-street parking. Park and Charge Oxfordshire offers an alternative solution by allowing residents to park for free overnight in council-owned car parks, while giving access to top of the range electric charging points." – P&C Oxfordshire.

To date, 19 of the 20 planned Park and Charge EV charging hubs are live and accessible for the community to use.

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