Electric Vehicle Charging Infrastructure (North East England)

The Project:

All 12 local authorities in the North East of England are committed to reduce carbon emissions by 20% by 2020, and as such, Electric Vehicles (EVs) are now promoted by many governments as an important means of reducing the environmental impact of transport. This necessitated a greater understanding of consumer behaviours.

One aim of the Charge Your Car (CYC) project (2010-1013) was to feed back the experience gained by developing EV charging infrastructure into future policy decisions at regional and national levels. This included the development of standards, evaluation of technologies, harmonisation of local incentives and understanding users' behaviour. CYC aimed to create a connected EV charging network in public, workplace and domestic areas, but needed strong support to move from a novel concept to an actual system. By 2013, 1,163 charging points had been installed across the region, which included 12 quick chargers, which enable EVs to be recharged to 80% in just 30 minutes.

CYC was funded by the Regional Development Agency 'One North East' (£3.8m), The UK Office for Low Emission Vehicles (£2.9m), along with grants from public and private partners (£1m), and was part of a wider regional initiative to develop a leading electromobility sector in the North East of England. Significant collaboration and co-operation between a range of stakeholders was required, with over 60 partners in the North East, including all 12 Local Authorities, private businesses, transport providers, academia, fleet operators and electricity suppliers.

Current successes/problems

This project has enabled the region to develop its electromobility sector and become one of the knowledge leaders in this area. CYC operates by providing a single charge point management system to which charge point owners can connect charge points, making the posts visible to all EV drivers via the CYC live status map. CYC enables charge point owners to set the tariff for each charge point, collect payment for usage, and provides alerts to charge point maintenance teams in the event of a fault. CYC simplifies travel across the UK using an EV, with the CYC app allowing EV drivers to find and use charge points.

Finding suitable locations and hosts for 50 kW quick chargers proved difficult, and necessitated a 100% grant plus a five-year maintenance service before any host would consider taking on this asset.