



ZERO  
CARBON  
FUTURES

# DRIVING CHANGE

TOWARDS A LOW CARBON TRANSPORT WORLD



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## INTRODUCTION

Zero Carbon Futures is a not-for-profit, low carbon vehicle consultancy. We devise and deliver projects that draw together partners in industry, government and academia to support and predict society's transition to a zero carbon transport world.

Since 2010, our team has delivered a variety of projects to help cities, towns, businesses and individuals to adapt to the move towards the decarbonisation of transport. As areas face increasing pressure to meet air quality standards, we provide practical advice and support to decision makers to put the necessary steps in place to meet these challenging targets.

Our projects, for various clients, range from large-scale, national electric vehicle charging infrastructure rollout, to demonstration of battery second life possibilities. It's our objective to understand the future impact this revolution will have on the infrastructure and energy use of our cities, homes and the way we travel.

We are proud that this work continues to generate breakthroughs and a wealth of knowledge.

*"As the automotive industry enters the biggest shake-up in its history, it's our goal to identify the technologies needed to respond to this and deliver them successfully into our cities, towns and homes."*



**Dr Colin Herron**  
*Managing Director*

## WHAT WE OFFER



### Project Management

Our multi-disciplinary team made up of automotive, engineering, manufacturing and marketing experts, has successfully delivered a range of electric vehicle related projects throughout the UK and Europe.



### Marketing

Raising public and political awareness on low carbon vehicle and technology initiatives is critical for lasting success. Our team repeatedly deliver outstanding campaigns, PR and successfully disseminate the results for our projects.



### Research & Strategy

Our projects have provided us with the opportunity to collect and analyse data from charging infrastructure, giving us insight into charging behaviour, which we use to inform future strategy for our clients, supporting them to develop sustainable places.



### Skills and Training

Working with the outstanding-rated Gateshead College, we've put together a package of specialist programmes and bespoke training on low carbon technologies in the transport and construction sectors.



### Bid Writing

Our experienced team has put together a multitude of professional funding bids on behalf of our partners and ourselves. Over the last four years, we've succeeded in generating over £20m for low carbon vehicle related projects.



### Strategy Development

We combine data insight, our deep understanding of the sector and connections with industry, business, government and academia to better prepare our cities, transport and homes for a low carbon future that works.



POWERING UP:

# ELECTRIC VEHICLE CHARGING NETWORKS

The development of charging networks is critical in supporting the uptake of electric vehicles. Our experience began in 2010, when we were responsible for planning and implementing a comprehensive charge point network in North East England and the company is now supporting the advancement of charge point networks throughout the UK. Our expert team has vast experience across all elements of charge point infrastructure:

## Feasibility studies

Using local data, insight and practical experience we have delivered feasibility and scoping studies on behalf of a number of clients to help them plan and future-proof charge point networks.

## Project management

With our wealth of knowledge and contacts across the sector, we have developed and managed multiple, high-value electric vehicle projects.

## Installation delivery

Our team has experience of managing every stage of the installation process. From site engagement, procuring charge points through to managing the continuous improvement of network performance.

## Stakeholder relations

We have extensive experience of managing a range of partners including DNOs and relevant authorities as part of the development process of any charge point network.

# 300

**RAPID CHARGERS**

installed throughout the UK on the highways network by Zero Carbon Futures

# 1,000+

**CHARGE POINTS**

installed in public places, workplaces and homes through Plugged in Places



## CASE STUDY

### Regional networks: Plugged in Places North East

Zero Carbon Futures planned and rolled out the UK's very first regional network in North East England through the UK Government's Plugged in Places programme. Throughout the project we liaised with over 100 public and private locations to deliver a fully joined up network. The project also launched the Charge Your Car network as well as developing a 3-year public marketing programme aimed at individuals and businesses.



## CASE STUDY

### National networks: Rapid Charge Network project

On behalf of Nissan, BMW, ESB group, Renault and VW, Zero Carbon Futures project managed the Rapid Charge Network project. The project delivered 74 multi-standard, rapid chargers as well as the largest European study of driver use of such a network. Our project management role covered all aspects of project delivery as well as a key role in monitoring and reporting on process for partners, UK Government and the EU.

## ELECTRIFYING RESULTS:

# BATTERY TECHNOLOGY AND THE ENERGY NETWORK

Gearing up for the city of the future is essential. At Zero Carbon Futures we believe that the car – and its battery – will become an integral part of tomorrow's energy network. Our research and technology projects are therefore investigating ways in which the vehicle will connect and impact on power generation, usage and storage.

Our new technology projects have covered topics such as the impact of charging on the grid through to examining how a car battery can be used as an energy storage system and we have vast experience of developing and delivering research projects, with a range of partners.



### CASE STUDY

#### Battery pilot: APC4

Zero Carbon Futures is administrating a £19.4 million APC4 project. The project brings together Nissan Motor Manufacturing Group with academic and technology partners Hyperdrive Innovation, Warwick Manufacturing Group and Newcastle University. This battery development programme includes pilot projects, product diversification and process improvement.

### CASE STUDY

#### Grid impact: My Electric Avenue

The My Electric Avenue project investigated the impact on the grid of home charging electric vehicles.

Zero Carbon Futures supported the EA Technology-led project by engaging with the public in the North of England to recruit onto the trials, as well as co-ordinating the installation of the Esprit technology and charge points into properties across the UK.

### CASE STUDY

#### Battery second life: ELSA

As a partner in the Horizon 2020 Energy Local Storage Advanced System (ELSA) project, Zero Carbon Futures is investigating the opportunity to combine second life batteries with an innovative local ICT-based Energy Management System. The project aims to develop a low-cost, scalable and easy-to-deploy battery energy storage system.

## CHANGING PERCEPTIONS, GROWING KNOWLEDGE

# MARKETING & TRAINING

Our vast knowledge of the industry has allowed us to offer a range of additional services to our clients and we have been supporting our clients with both marketing and training for many years.

### Marketing and awareness

Our team understand exactly what's driving change in the industry and since 2010, we have been running marketing programmes to raise awareness of electric vehicles and break down barriers to purchase.

The driving force behind all our campaigns is solid consumer insight and we have undertaken market research for many years to help understand people's changing perceptions to electric driving. This has informed the delivery of a number of multi-channel engagement campaigns targeted at both the public and B2B markets.

Our credentials also include stakeholder communications and we have helped to raise the visibility and share learnings of our projects regionally, nationally and across Europe.

### Training and skills

Using the experience and knowledge gained from our projects, combined with an understanding of the construction and built environment sectors; we now offer a range of bespoke training and skills development programmes on these emerging technologies.

Since the introduction of electric and hybrid vehicles, our team has devised programmes to train vehicle manufacturers, technicians, mechanics, first responders and fleet managers to ensure they have the skills, knowledge and confidence to work with these new vehicles.

Our wider experience of working in a domestic and construction setting has also allowed us to develop training on topics such as renewable energy, energy efficiency and battery storage.

We offer accredited qualifications as well as developing tailored training on specific topics.

*"Our experience of working with Zero Carbon Futures has helped us to develop a coherent strategy for West Yorkshire's electric vehicle charging infrastructure. Their knowledge and experience in the industry coupled with their significant number of contacts provided us with a fully-costed plan for moving forward."*

**Alistair Ryder**  
Integrated Transport,  
West Yorkshire Combined Authority



### Our clients and partners





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