



**CAMBRIDGESHIRE
& PETERBOROUGH**
COMBINED AUTHORITY

Cambridgeshire & Peterborough Electric Vehicle Infrastructure Strategy

01/03/2023

Version History

Revision Number	Revision Date	Nature of Revision	Checked by	Reviewed by	Approved by
1	01/03/2023	Draft	EB/JB	EW	

Introduction & Scope

In July 2018, the Government published its Road to Net Zero strategy, an ambitious roadmap towards delivering zero emissions transport across the UK.

The Road to Net Zero Strategy is built around a core mission: to put the UK at the forefront of the design and manufacturing of zero emission vehicles and for all new cars and vans to be effectively zero emission by 2040. The plan set out the policy to end the sale of new conventional petrol and diesel cars and vans by 2040. By then, the strategy expects the majority of new cars and vans sold to be 100% zero emission and all new cars and vans to have significant zero emission capability. By 2050 the strategy wants almost every car and van to be zero emission.

Across Cambridgeshire and Peterborough, road traffic is the largest contributor to our carbon footprint. As show in in [Figure 1](#), 75% of carbon emissions come from our road traffic (A Roads and Minor Roads).

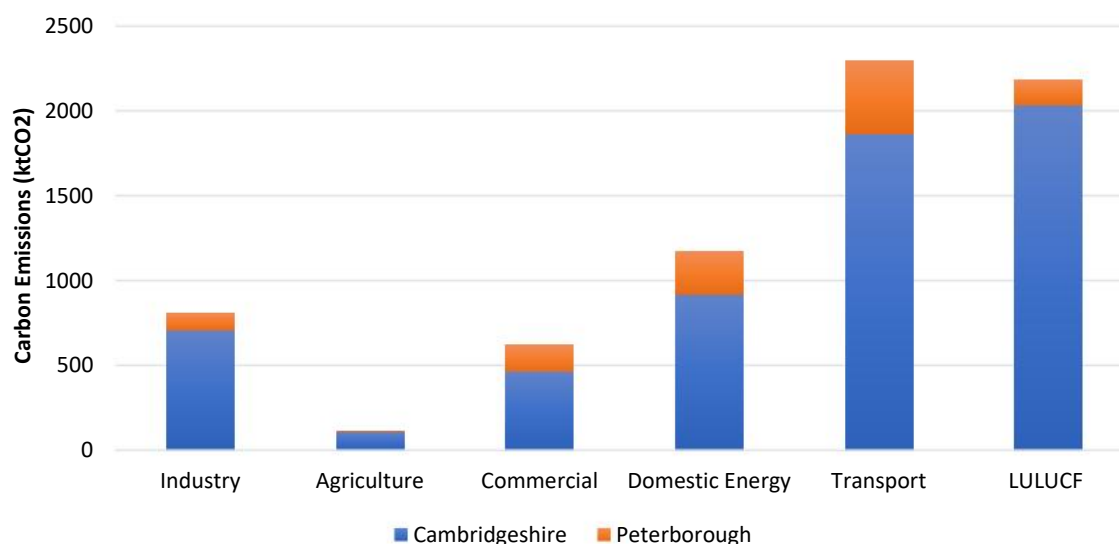


Figure 1 Carbon Emissions (2019) in Cambridgeshire and Peterborough. ONS.

Whilst it is known that the best route to avoiding a significant proportion of these emissions is to encourage modal shift away from low occupancy vehicles in favour of active travel, public transport and travel avoidance, some low occupancy methods of powered travel are likely to remain in high demand for the foreseeable future, and that something must be done now to avoid the associated emissions.

A long-term approach and continued commitment from the Combined Authority and constituent local councils is required to support the development of the local EV market and to ensure that access to charging infrastructure is not a barrier to entry. The transition away from combustion engines is happening quickly and at an increasing rate. The scope of this strategy is therefore to address the transition of roadgoing transport within Cambridgeshire and Peterborough away from fossil fuels in the short term and through the next decade.

The strategy focuses on 5 key areas for delivery:

1. Charging Infrastructure – to ensure our approach is appropriately targeted to different settings
2. Chargepoint Accessibility – to ensure all our communities have equitable access to public chargers
3. Communication, Advocacy and Outreach – to share our knowledge and empower our communities
4. Public and Shared Transport -
5. Planning, Regulation and Guidance – for new developments

VISION / OBJECTIVES

To Be Confirmed

Background & Policy Context

National Policy

Government set out the UK 2050 Net Zero Strategy¹ in October 2021, and has subsequently published its Electric Vehicle Infrastructure (EVI) Strategy². It identified five key challenges in providing the necessary EVI to support the ban on internal combustion engine (ICE) vehicles which will come into force by 2030:

- The pace of roll-out is too slow
- Too often, public charging lets people down
- The business case for commercial deployment can be challenging
- Connecting new chargepoints to the electricity system can be slow and expensive
- More local engagement, leadership and planning is needed

The Governments' vision for 2030 is that:

- Everyone can find and access reliable public chargepoints wherever they live
- Effortless on and off-street charging for private and commercial drivers
- A reliable network of high powered chargepoints along major roads
- Fairly priced and inclusively designed public charging, trusted by consumers
- Market-led roll-out for the majority of chargepoints, backed by competition
- Infrastructure seamlessly integrated into a smart energy system
- Continued innovation to meet drivers' needs

To deliver this vision, Local Transport and Highways Authorities must work together with our partners to leverage the market and ensure equitable, high quality public charger provision is available to communities across the CPCA area.

Local & Regional Policy

The Local Transport and Connectivity Plan (LTCP) sets out the strategic ambition for transport improvements across the CPCA area. A key focus is to “address the adverse pollution and alleviate the harmful consequences of the transport network” on human health and climate. Decarbonisation of transport, in line with Government’s Transport

¹ [Net Zero Strategy: Build Back Greener - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/net-zero-strategy)

² [UK electric vehicle infrastructure strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/electric-vehicle-infrastructure-strategy)

Decarbonisation Plan is core, and use of alternatives for fossil fuels is explored in the CPCA's Alternative Fuel Strategy.

For electrification and chargepoint roll out, it identifies key considerations for the area, including:

- A unified vision and approach to chargepoint deployment;
- Prioritisation of areas with low off-street parking access; and
- Ensuring deployment is supported in more challenging/uncommercial areas to deliver an equitable distribution across the region

The CPCA's Climate Action Plan provides a means to deliver this ambition, bringing together the local authorities to ensure a fair and equitable network of public chargers are provided, particularly for those residents unable to charge at their homes. This EV Strategy underpins this ambition, setting out how we can act to deploy public chargers and meet the considerations highlighted by the AFS.

Across the CPCA area, the Local Authorities also have their own climate and carbon objectives, which include their ambitions to facilitate EV charging.

Cambridgeshire

Cambridgeshire County Council's Climate Change and Environment Strategy sets a vision for the County to be net zero by 2045 while supporting residents to make the changes they can to reduce their emissions. Supporting modal shift and removing barriers to take up of low carbon transport is a key priority.

Similarly, the District Councils are working in their areas to support the transport transition. Cambridge City Council and South Cambridgeshire District Council each have their own EV Strategies, while Fenland, Huntingdonshire and East Cambridgeshire District Councils have, or are enquiring into charge points / planning chargepoints provision across their car parks.

Peterborough

In July 2019, Peterborough City Council declared a climate emergency. Peterborough City Council have committed to make the council's activities net-zero carbon by 2030, and to also support Peterborough become a net-zero carbon city. Transport and Travel forms a key part of this ambition, including encouraging the use of active travel modes, public transport and electric vehicles. Increasing the number of people travelling sustainably in Peterborough will significantly reduce the city's carbon emissions, along with bringing several other vital benefits including improving physical and mental health, improving air quality, reducing travel costs and stimulating the economy and providing jobs to the local area.

The Current Situation across Cambridgeshire & Peterborough

EV take up

Across the region 19,299 plug in vehicles were registered under private keepership as of Q3 2022. Electric vehicle uptake across the region mirrors the national picture, with an almost exponential growth (Figure 2).

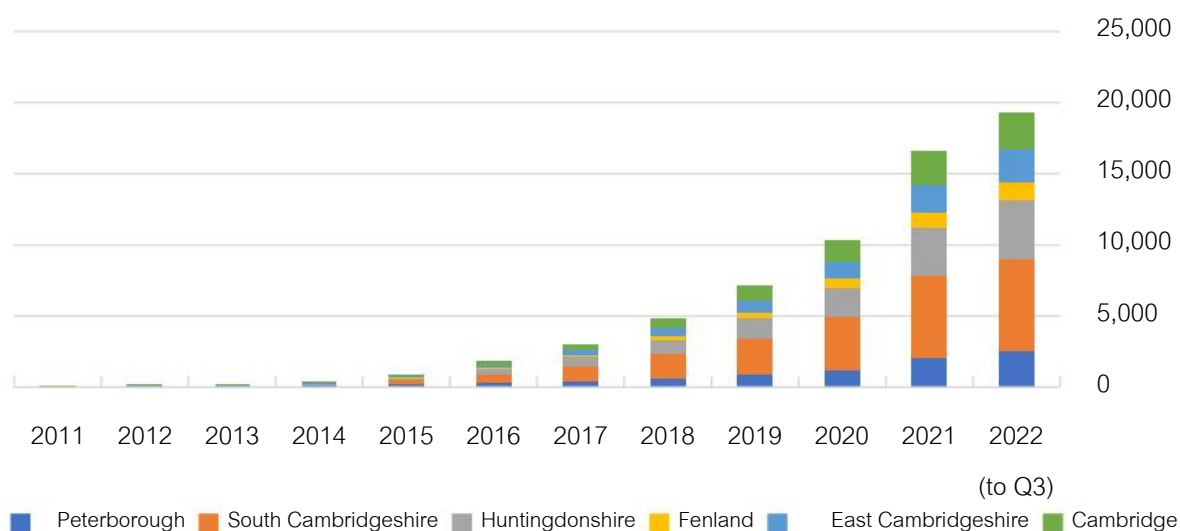


Figure 2 Registered plug-in cars under private keepership in Cambridgeshire and Peterborough. DfT Statistics: VEH0132

EV Chargepoints – publicly available

For Cambridgeshire, chargepoint provision requirements are estimated at over 3500 public fast chargers plus over 50 Rapids on the strategic road network. The majority of these will be required ahead of need to stimulate the transition to electric.

The LTCP demonstrates that the public charging network across East Anglia is at a relatively early stage of development. The majority of charge points are clustered around key settlements, or distributed along the road network, with relatively few charge points found in between.

The latest DfT data from October 2022 puts the total number of public chargepoints in Cambridgeshire and Peterborough at 247 slow/fast and 68 rapids (Figure 3). These figures have been slowly increasing however improvement is slow. The majority of these chargepoints are in private sector settings: supermarkets, service stations etc.

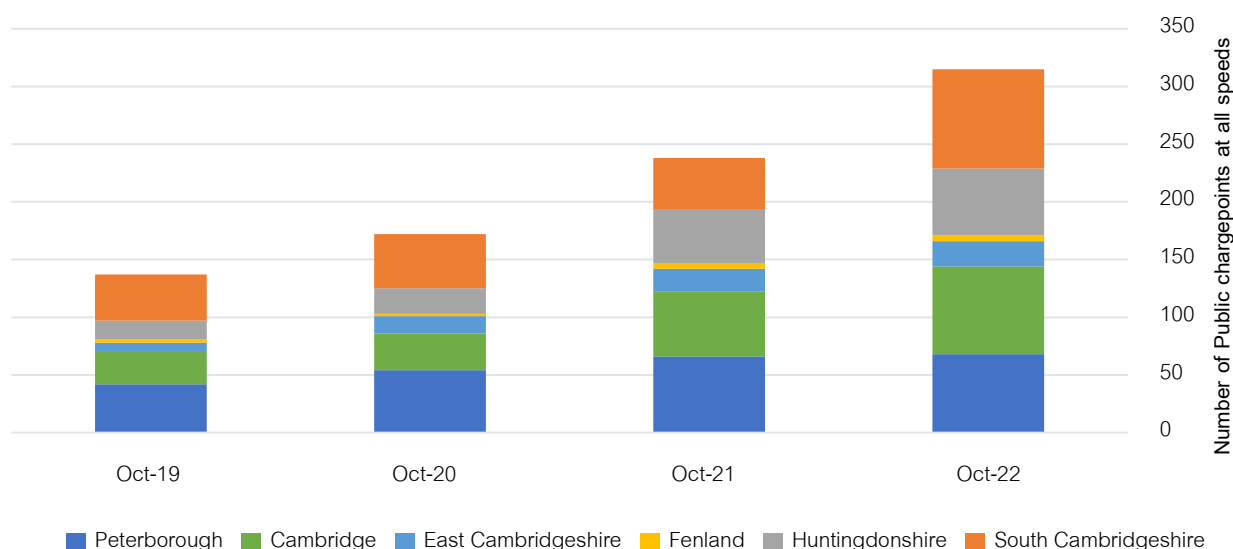


Figure 3 Number of public chargepoints across Cambridgeshire and Peterborough. ONS Data

Across the region, public chargepoint provision is unevenly distributed. Fenland has the fewest chargepoints - likely due to the low numbers of electric vehicles in the area undermining a business case for installations. We must work to develop a network that delivers a transition away from fossil fuels, enabling all our communities to switch.

Barriers to EV uptake

Consumer surveys suggest there are a number of commonly identified reasons why people do not make the switch to an electric vehicle. Many of these will be addressed within the Strategy:

Identified Challenge	How we can address them
Upfront cost	Whilst the CPCA and local highways authorities cannot reduce the costs of EVs, the CPCA can work with our communities to ensure they are aware of the longer term financial benefits of switching from an ICE vehicle. Engagement with communities to “myth bust” and enable everyone to understand the rapidly evolving technologies on offer can be undertaken.
Range anxiety	
Uncertainty over the technology	
Reliability of chargers	The CPCA can ensure through delivery and procurement approaches that there are sufficient numbers of public chargers where they are most needed and work with chosen contractors to ensure reliability and accessibility is prioritised.
Availability of Chargers	
Grid Capacity	Local Area Energy Planning – Planning where critical electrical infrastructure is located and scaled to ensure access to the network is available in areas where infrastructure is needed. Peterborough already has a plan, and Cambridgeshire is currently developing theirs.

Lack of solutions for residential areas : Requests

The Council, and Districts, are receiving increasing numbers of requests for on-street chargepoints from residents without driveways: the majority are from Cambridge residents. While absolute numbers of requests are low, these have been unprompted, and we anticipate that should a “call” be put out for suggested locations the response could be significant.

Cambridge	57	Huntingdonshire	5
East Cambridgeshire	4	South Cambridgeshire	9
Fenland	3		

Similarly, there have been enquires regarding permission to trail cables and other “DIY” solutions which pose a potential safety and equity risk on the highway.

Key Focus Areas - Charging Infrastructure

Home Charging

This is where a resident has their own, private EV chargepoint installed on their property. In most cases this is only an option where residents have off-street parking.

Installing your own charger

Various reports suggest that over 80% of EV charging happens at home. Residents who have access to off-street parking can install a home-charger connected to their home electricity supply. These are often the most convenient and cheapest way of charging.

There are lots of options out there, and we can work to signpost our residents to authoritative guidance and information.

Some homes, particularly those in private rentals, may be eligible for government grant to support the purchase and installation of a chargepoint. We can work with landlords and tenants to ensure all are aware of the financial benefits currently available to them.

All new build homes in England will be fitted with electric vehicle charging stations as standard, under new building regulations designed to promote the uptake of low-emission vehicles.

EV Crossing-over

EV Crossing-over is where a resident has their own chargepoint on their property but no associated off-street parking. Instead the vehicle is parked on-street, and the charging cable “crosses-over” the footway.

Section 178 of the Highways Act states that “no person shall fix or place any ... cable, wire or other similar apparatus over, along or across a highway without the consent of the highway authority for the highway”. This provision is designed to ensure safe conditions on the highway.

The Cambridgeshire and Peterborough Highways Authorities do not permit trailing cables across public footpaths or verges for safety reasons. Even if covered with a mat protector cables present a trip hazard, and present a disproportionate risk to those with protected characteristics and could be considered a breach of the Equalities Act

This is not a position that we anticipate changing, and so our focus is instead on finding suitable alternative provisions.

To overcome the safety issues posed, innovative government funded work in Oxfordshire to develop channels that run across the footway from residents' homes to enable a charging cable to cross the footway from a home-chargepoint. These are still in a trial phase. There have been significant legislative, risk and practical barriers to overcome – these are key areas of exploration for the on-going trials. Tentative solutions have been found and government will be producing guidance for these systems.

We await the outcome to inform the Cambridgeshire and Peterborough position and will look to be able to move quickly once this position is clear.

Residential EV Charging

This focuses on where residents don't have off street parking so need to be enabled to charge close to home.

On-Street Charger Installations

Public on-street charging is primarily focused on enabling those residents who cannot charge at home to do so at, or close to, where they would normally park.

These chargers will tend to be slower (c.7kW) chargers to reflect the longer durations that residents tend to park for when at home. These also tend to be compatible with the widest range of different vehicles. Where chargers are installed, we would generally seek to designate the bays as "EV only" to ensure access is maintained. Where such changes to parking is considered a requirement, formal Traffic Regulation Order processes would be followed, and the local community consulted.

There is no universal guidance on what is acceptable on the highway in terms of the physical installation design. This is left to the relevant highways authority to agree. Using these documents and internal expertise, we will develop a guide for charger installations on the highway. This will streamline installations, and ensure uniformity in installations across the region, establishing a "Cambridgeshire and Peterborough Approach" to on-street charging. Finding suitable locations can be a challenge, and we set out some principles for this in section 0. Charging points should not be considered the personal charging point of any individual but will be an asset for the community to access. To support this, where practical the bay will not be located outside one particular property, but in the best location to serve an entire street.

Lamp Post Charging

Options to use lighting columns to facilitate charging have been explored on several occasions as new solutions come forward, and conversations are ongoing. There is a clear opportunity where new columns are installed, and this is being looked at in conjunction with a Connecting Cambridgeshire project.

Retrofitting into existing infrastructure is more challenging. There remain practical issues to the retrofit of chargers into lighting columns, such as where the lighting columns are located to the rear of the footway therefore cables would end up being trailed across the footway. As such there are relatively few locations where this approach is viable in the county. Discussions are on-going to ascertain options for utilising lighting columns, and we will take learning from other LAs, such as Lancashire County Council who have incorporated provisions for EV charging into their standard “Guidance for Fixing Attachments to Street Lighting Columns”.

Destination Charging and Charging Hubs

This focuses on where EV drivers may want to charge either at a destination or en route. This includes the Council run car parks, public buildings such as offices and leisure centres and, where appropriate, on-street parking in town centres.

Car Parks (incl. Park & Rides)

Across Cambridgeshire and Peterborough, there has been a focus on ensuring local authority car parks have EV chargers.

In Peterborough, there are currently 22 public charging spaces (as opposed to points) as well as the 4 e-Taxi rapid and 3 for our own service vehicles. 4 public charging are on street and 18 are in the car parks. They are as below:

Across Cambridgeshire the District Councils are already installing across their car parks – to be confirmed.

There are several chargepoints across the Cambridgeshire park and ride locations, with officers closely monitoring how further installations could be facilitated. We have a commercial arrangement with Tesla at Trumpington P&R. Alongside this we have a separate commercial arrangement with BP Pulse at Trumpington and Milton.

St Ives and Babraham P&Rs are having significant numbers of chargers installed as part of the wider Smart Energy Grid projects, both of which are now in construction. Consideration for the other P&Rs is underway, with officers seeking to align the chargepoint approach (at a minimum pricing) across all sites.

General Principles for chargepoint locations

When we assess where to locate charging infrastructure there are a range of elements to consider. Each site will be different, but in broad terms:

- Provide charging points in the places that people need them, but not in locations that encourage additional car use.
- Focus on areas where residents cannot make the switch to EV without access to a public charging network, but we want to ensure a good geographical spread across the county.
- Ensure any charging points we enable are complementary to, and not in direct competition to others already operating in the area.

- Engage with the market to encourage them to invest in charging infrastructure within the region and to ensure any additional public charging infrastructure is complimentary to privately owned charging points.
- Initial efforts will focus in areas where we predict there will be more charging points required. These are areas where there is less access to off road parking, where uptake trends are fastest and where there are more commuter journeys happening.
- Cambridgeshire and Peterborough residents will have the opportunity to suggest suitable specific sites for charging points to be installed.
- Individual sites will be subject to full feasibility investigations including an assessment of local grid capacity.

ChargePoint Accessibility – PAS BSI/Motability

Nationally it is expected that by 2030 when the ban on new ICE vehicles come into force, we will have over 2.5 million disabled drivers on UK roads. Ensuring everyone in our community are able to easily access and use chargepoints infrastructure is vital.

To support Local Authorities, British Standards Institute produced best practice guidance – PAS 1899:2022 – which sets out how to make EV chargepoints accessible to all. As far as practicable, all public chargers installed by local authorities across the CPCA area will to comply with the best practice set out in this guidance.

However, accessibility is not just about ensuring all can use the chargers – we must also ensure they are as easy straight forward to use as possible. Increasingly, current EV drivers are sharing their frustration at the proliferation of payment mechanisms required to use different types of chargers. In response, Government is bringing forward new requirements for all chargers funded by public sector grants to have contactless, pay as you go capabilities.

We will ensure that all chargers we install, where possible, will have this payment option. Where there are chargers already installed, we will explore the possibility to retrofit, however it is likely these will need to be transitioned as they're replacement dates come up.

Communication, Advocacy and Outreach

We understand the concerns that have been raised and the need for more information to be shared to give drivers and business the confidence they need to go electric. Some of these points are addressed in this strategy. There is also an increasing body of Government and industry guidance available that dispels many of the misconceptions about EV's and guides drivers through the electrification journey and vehicle and charger funding available.

There are a number of community-led projects to install chargepoints for residents and/or their wider communities. For example, the resident association at Marmalade Lane in Orchard Park are installing charge points in their car parking area. Similarly, several Parish Councils are working with South Cambridgeshire District Council to install chargepoints at their parish halls.

We can take learning from these schemes and, working with our partners such as CambsACRE to share these schemes and encourage and empower our communities to act themselves.

We will ensure our communities have easy access to this information and local examples. We will host events, such as the Energy Saving Trust “Go Electric” events to bring this information to our communities, empowering them to decide what will work best for them.

Public and Shared transport

In July 2021 the government published the Transport Decarbonisation Plan, which details the government’s intended strategic direction for decarbonising the transport sector. The paper details the intention to move mobility away from motor vehicles (irrespective of fuel propulsion system) firstly to active travel (e.g. cycling, scooting and walking) and secondly to public mass transit (e.g. bus, train and tram). Below summarises the current situation:

- The first two electric double-deckers (dds) were in service in late 2019
- Thirty new Volvo EV dds plan to be service in April 2023

Shared Transport

Through the LTCP, Councils are working to ensure that transport is not only cleaner, but that congestion is reduced, and places are better linked by public transport and active travel routes.

For those who only occasionally make journeys that aren’t a good match with public transport, there are already options that can negate the expense of owning and maintaining a personal car. Whilst electric bikes have seen a huge uptake, they will not suit everyone, so we will work to ensure car clubs are expanded where possible. We will ensure that charging facilities are co-located with these services to enable car club vehicles to be electric too. Even in our rural areas, where a car club might mean a resident could switch to one vehicle rather than two, we can see big benefits.

For those that don’t want to drive or ride themselves, and traditional public transport isn’t an option, ride hailing services and taxis may be an option. Working with such services to ensure infrastructure is available to enable them to switch to electric will be important. Already all taxi’s licenced by Cambridge City Council must be ultra low or zero emission, and rapid chargepoints for taxi’s have been installed to facilitate this change. Other District Councils are looking at similar approaches.

Planning, Regulation & Guidance

The requirement for the provision of electric vehicle charging points in new development (both new build and changes of use) is set out in the National Planning Policy Framework 2021.

- Paragraph 110, bullet (a) requires appropriate opportunities to promote sustainable transport modes, given the type of development and its location; and
- Paragraph 112, bullet (e) requires new development to be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations

Parking Standards are set by each respective Local Planning Authority and align to the relevant National Planning Policy Framework (NPPF). They state that any new development should achieve a suitable level of car parking provision for future residents and/or the proposed land uses, without reliance upon the adoptable public highway.

Building Regulations Section S, updated in 2022, impose requirements on new builds and those undergoing significant renovations that have associated parking, to have either active chargers and/or cable routes to facilitate later installations. Building regulations apply to residential and non-residential settings.

Cambridgeshire

Taking these together, in Cambridgeshire have worked with our Local Planning Authorities to ensure chargepoint provision is “designed in” to any development. It incumbent upon the developer to provide suitable levels of EV charging points, as may be required to meet OZEV requirements, within each dwelling curtilage, or in designated areas (private laybys/ small communal car parks etc). These must be provided without need to install on the adoptable public highway.

Additionally, we recommend that the promoter of any site should carefully consider the siting of EV charging in relation to the overall development management strategy, as recommended in the National Design Guide, such that ‘management and maintenance responsibilities are clearly defined for all parts of a development’.

Peterborough

Peterborough’s Local Plan Policy LP13 states that all development requiring parking provision should be designed, unless there are exceptional design reasons for not being able to do so (e.g. listed building constraints or site-specific factors), to incorporate facilities for electric plug-in and other ultra-low emission vehicles, or as a minimum the ability to easily introduce such facilities in the future.’

How we will deliver

There are two main government funding schemes available to us: the On-Street Residential Chargepoint Schemes (ORCS) and the Local Electric Vehicle Infrastructure (LEVI) Scheme. These have different terms but are both designed to support local authorities to deliver charging infrastructure in the more challenging locations where the need is greatest.

Where financial business models are strong we will explore investing our limited capital funds, but in the majority of cases we anticipate use of either government grants and/or private sector investment. Therefore our preferred option for delivery and ongoing management, operation and maintenance is via a third party contractor who specialise in EV charging and understand the detail of how to manage such networks.

We will develop rolling annual delivery plans to ensure we are delivering at the pace and scale we need to support our residents to transition.

Action Plan

Detail to be confirmed

Action	Target Date	Responsible organisation
Resourcing – securing dedicated resource to roll out EV chargers		CPCA/PCC/CCC
Launch a register of interest for on-street residential charger provision and integrate into mapping to identify potential locations	2023	CPCA
Project 1: Mapping activities to identify suitable locations for public chargers		
Project 1: Identification and drafting of technical policy/specification for highways EVCP installations		CCC/PCC
Project 2: Appraisal of approaches and technical specification for non-EVCP solutions (gullies etc) on this highway		CCC/PCC
Project 1: Appraisal of commercial opportunities		
Establish the most appropriate procurement mechanism and undertake this following agreed commercial approach		
Impact of emerging Building Regulations and local planning policy on public EVCP provision		
Project 2: Highways policy – Evaluation of policy levers to deliver compliant EV charging projects in the adopted highway		
Establish governance process for coordinated funding bids		
Establish ongoing delivery plan and groups for at scale role out		
Funding applications- ORCS/LEVI Capex		CPCA
EST Go Electric Events – targeting specific audiences.	During 2023/24	CPCA – Engagement workstream in Climate Action Plan?