

# Electric Vehicle Charging Strategy



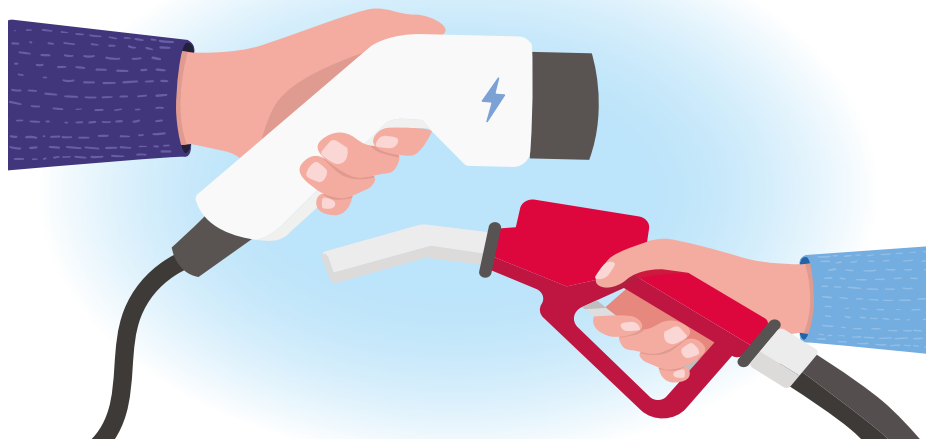
# Background

## The market for electric vehicles and charging infrastructure

With sales of new petrol and diesel cars set to end in the UK from 2035, the uptake of electric vehicles (EV) is forecast to rapidly increase over the next decade.

As of the end of 2023, there were approximately 1 million fully electric cars on UK roads and a further 600,000 plug-in hybrids. This compares with just over 10 years ago when there were around 5,000 electric vehicles registered.

At present, most of the UK's charging demand is met through home charging (on private driveways / garages or allocated off street spaces). However, publicly accessible charging infrastructure is now becoming increasingly necessary to enable wider EV uptake.



## Our target to achieve net zero carbon

The County Council declared a climate emergency in May 2019 and has a target to achieve net zero for its own operations by 2035 and to achieve net zero across the county by 2050 to align with government targets.

To help decarbonise transport and contribute to our net zero ambitions for the county, we are keen to support local communities in switching to electric vehicles. Although only part of the solution, EVs have a key role to play, alongside our work to encourage sustainable transport options, such as walking, cycling and bus travel.

Nevertheless, this is a new and very challenging area for local authorities, with very little consensus nationally on how to provide the necessary charging infrastructure in a coordinated way, to deal with growing EV demand, particularly for those with limited or no access to off-street parking.

# Introduction

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## The Electric Vehicle Charging Strategy

The County Council's Electric Vehicle Charging Strategy (the Strategy) is an important first step in helping the Authority play its part in the roll out of EV charging infrastructure.

Although we anticipate that most of Leicestershire's public charging infrastructure will be delivered by the private sector, we have a key role to play in securing government funding and helping to fill in gaps in provision and support those with limited access to off-street parking.

The EV market is rapidly evolving, and we are at the early stages of planning for EV charging. Our Strategy is focused on what we can do in the short term, up to around 2030, to specifically address charging infrastructure for EV cars and vans, but we will have one eye on the longer-term future, to fit with wider national policy changes and respond to technology and innovation.



## Purpose of this Strategy

Our Strategy will firstly support the delivery of the Authority's fourth Local Transport Plan (LTP4) and our vision for transport in Leicestershire.

Secondly, it will provide the framework for our approach to EV charging provision and its practical ongoing delivery, setting out the Council's key long-term goals.

Thirdly, it will outline our immediate objectives that we will seek to achieve in the next 5 to 6 years, providing a clear plan under which residents, partners, contractors and other stakeholders can expect us to operate. How we will work in collaboration with residents, partners, communities and the private sector to help establish a robust and accessible public charging network that meets the needs of EV drivers across the county and encourages the widespread adoption of EVs.

Finally, the Strategy will also provide a document for council members to assist with decision making around EV infrastructure provision and allow the public to gain sufficient understanding of the challenges ahead and actions to be taken.

It is likely that the Strategy will need to be reviewed and refreshed after the first two years, to ensure we respond and adapt, as technology advances and new national policies and funding streams are brought forward.

### Local Transport Plan (LTP4)

Our wider vision for Transport across Leicestershire

### Electric Vehicle Charging Strategy (EVCS)

- Pathway to public EV chargepoint delivery and its practical ongoing delivery
- Key goals and objectives to underpin the authority's approach
- Wider policy framework and context

### Chargepoint Delivery

Day to day operation, installation and management

# Our Key Goals

We have developed six key goals for our Strategy, based on our LTP4 overarching vision for Transport in Leicestershire.

Our **key goals** outline our aspirations for our Strategy; and the broad outcomes we would like to achieve in the long-term beyond 2030.

We have also identified a series of Strategy **objectives**, which describe the steps we intend to take in the short term (up to 2030), to work towards our long-term goals. These are set out on pages 15 - 20.

## Our LTP4 Vision for Transport in Leicestershire

‘Delivering a safe and connected transport network which is resilient and well-maintained to support the ambitions and health of our communities, deliver economic prosperity whilst safeguarding our environment.’

### 1. Social Equity

Deliver an equitable EV charging network that supports economic prosperity and meets local ambitions, through an accessible, inclusively designed and well distributed network.

### 2. Healthy Environment

Promote a healthy environment for all by reducing vehicle exhaust emissions from cars and vans and improving air quality.

### 3. Creating Better Places

Create better places using infrastructure that is inclusive, sensitively placed, designed to complement our public spaces.

### 4. Connected Network Meeting Demand

Support economic activity and keep people and places connected, especially in a rural county, by providing the right charging solution in the right place to encourage the uptake of EV's.

### 5. Resilient and Safe Network

Enable a resilient and safe transport network with infrastructure that is reliable, accessible, safe, compatible, easy to use and represents good value for money at installation and use during its life.

### 6. Decarbonise Road Transport

Reduce carbon emissions from cars and vans by encouraging the transition away from the internal combustion engine and towards EVs.

# Our Focus

## Overview

The Strategy covers:

- The administrative area of Leicestershire.
- Charging infrastructure for cars and vans.
- Charging infrastructure delivered and managed by the Council.
- The provision and delivery of charging infrastructure for residents, local businesses and their employees, van-based logistics operators, visitors and shoppers.



The Strategy does not at this point cover:

- Charging infrastructure for e-bikes, electric motorbikes, buses or large goods and service vehicles.
- Off-street car parks, except for suitable Council owned sites, (subject to funding).
- Sites located off the public highway.
- Private business, e.g. destination, workplace and depot charging (including the Council's fleet operations).
- En-route charging, e.g. sites within laybys.
- Charging infrastructure for private individuals or sole use.
- Cross pavement solutions e.g. gully channels solutions. The Council are awaiting appropriate and technical guidance from government to navigate the significant and complex issues resulting from this type of intervention.

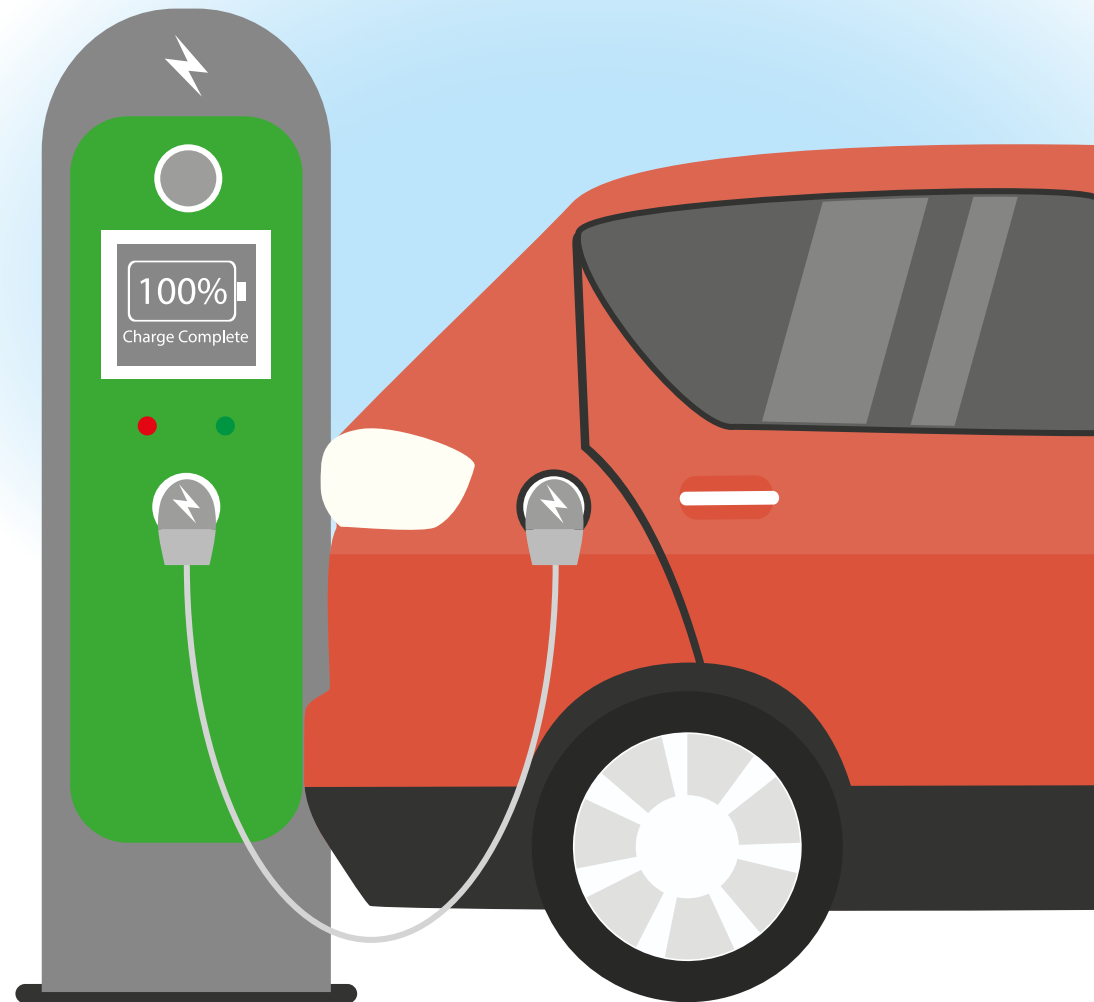
The term 'electric vehicle' is used to refer to all 'plug-in' vehicles excluding hybrid vehicles without a plug.

## Chargepoint deployment

The Strategy will focus on charging infrastructure deployed equitably across the county, driven by demand, land availability, commercial considerations of our Chargepoint Operator (CPO) partners, grid capacity and the availability of funding.

In doing so, we will focus on infrastructure that is:

- Located within the public highway, i.e. residential streets, high streets, and main roads. Suitable Council owned sites will also be considered, e.g. country parks and libraries, subject to the availability of funding.
- Publicly available, 24 hours a day, serving wider public interest.
- Located in areas where there is evidence of residential parking demand, where home charging is not possible, i.e. off-street parking is limited or unavailable.
- Spread across the entire county, in both urban and rural locations, acknowledging that more chargepoints will be needed in urban, more populated areas.
- Located at sites identified by residents, where this aligns with the scope of the Strategy.
- Planned and delivered in accordance with government EV funding criteria to maximise the Council's chances of success e.g. Local Electric Vehicle Infrastructure (LEVI) funding.
- Mainly lower powered, 'Standard' (7kW) chargers suited for overnight charging. A small amount of lamppost chargers (3kW) and 'Rapid' (50kW+) chargers will be considered across the county, where appropriate.



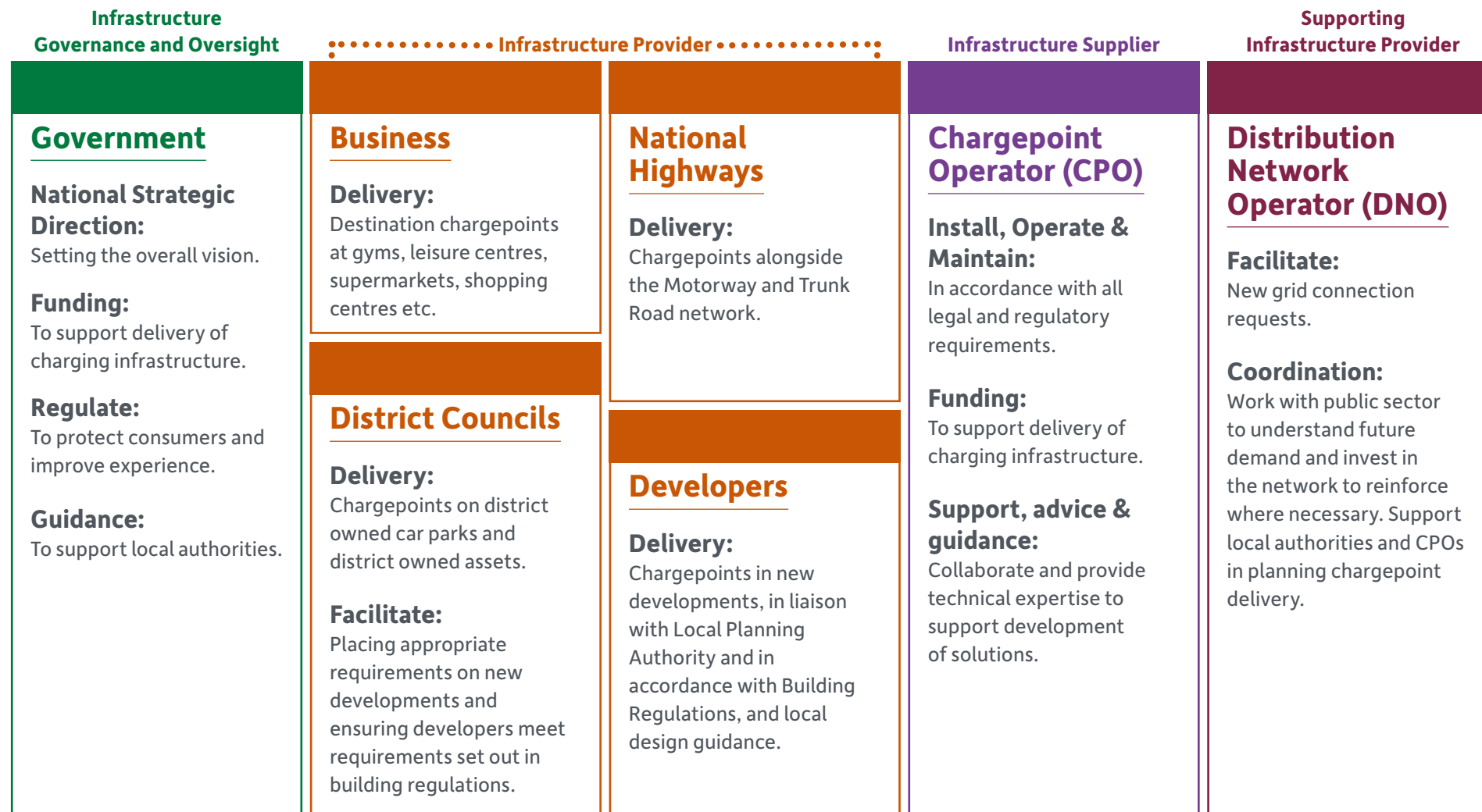
# Our Role

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Local Strategic Direction	Delivery	Funding	Planning and Coordination	Facilitation	Raising Awareness
Understanding local current and future public charging needs and identifying gaps in public EV charging provision. Publishing long-term strategies setting out the approach to delivery.	Providing public EV charging infrastructure. Adapting public assets, such as the public highway in accordance with local strategies.	Securing funding from both government and the private sector to support the delivery of chargepoints.	Working with public/ private sector chargepoint providers to plan and coordinate delivery, to ensure a coordinated and coherent approach.	Working with developers and Local Planning Authorities (LPAs) to facilitate EV charging infrastructure in new developments.	Informing local communities about EV's and associated charging infrastructure.



# Wider Roles and Responsibilities



# Policy Context - National and Regional

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## Midlands Connect: Supercharging the Midlands (2021)

- States that EVs have an increasingly important role to play in rural areas, where a larger proportion of emissions (77%) come from longer trip distances over ten miles. These journeys are less likely to be easily transferred to active travel modes such as cycling and walking, and so a higher degree of motorised travel is likely to remain.

## Transport Decarbonisation Plan – Decarbonising Transport: A Better Greener Britain (2021)

- Outlines a clear path to carbon neutrality by 2050.
- Describes removing tailpipe emissions from cars and vans as fundamental to decarbonising transport as they were responsible for almost a fifth (19%) of the UK's total domestic greenhouse gas emissions in 2019.

## Taking Charge: The Electric Vehicle Infrastructure Strategy (2022)

- Plans for around 300,000 public chargepoints to be required nationally as a minimum by 2030. This may increase depending on EV uptake and future driving habits.
- Sets out local authority's responsibilities, to develop local EV chargepoint strategies as an immediate priority.

### • Vision for 2030:

- Everyone can find and access reliable public chargepoints wherever they live.
- Effortless on and off-street charging for private and commercial drivers.
- Fairly priced and inclusively designed public charging.
- Market-led rollout for the majority of chargepoints.
- Infrastructure seamlessly integrated into a smart energy system.
- Continued innovation to meet drivers' needs.
- Charge: The Electric Vehicle Infrastructure Strategy (2022).

## Plan For Drivers (2023)

- Announces over £380million of funding from March 2023 for local authorities across England through the Local Electric Vehicle Infrastructure (LEVI) grant.

## Zero Emission Vehicle (ZEV) Mandate (2023)

- This requires 80% of new cars and 70% of new vans sold in Great Britain to be zero emission by 2030, increasing to 100% by 2035.

# Policy Context - Local

## Environment Strategy: Delivering A Better Future 2018-2030

- Aims to reduce the environmental impacts of travel and transport through reducing greenhouse gas and other pollutant emissions from the local transport network.

## Leicestershire Net Zero Strategy & Action Plan 2023-2045

- Outlines the Council's approach to achieving net zero for its own operations and across the county.

## Medium Term Financial Strategy (MTFS) 2024/25 to 2027/28

- In light of the Council's financial position, the Council's net zero targets were revised; for its own operations, from 2030 to 2035, and for the wider county from 2045 to 2050.

## Strategic Plan 2022-2026

- The Council's long-term vision and current priorities.
- Highlights Leicestershire's below average rates of EV ownership.
- States that the Council will work with partners to enable and encourage EV usage, such as by expanding chargepoint infrastructure with success measured by the rate of electric vehicle ownership.

## Local Transport Plan 4

- The EV Charging Strategy underpins the Council's LTP4 and the delivery of the Core Themes identified for Leicestershire's Strategic Transport Vision:



Enabling Health  
And Wellbeing



Protecting The  
Environment



Delivering  
Economic  
Growth



Enhancing Our  
Transport Network's  
Resilience



Embracing  
Innovation

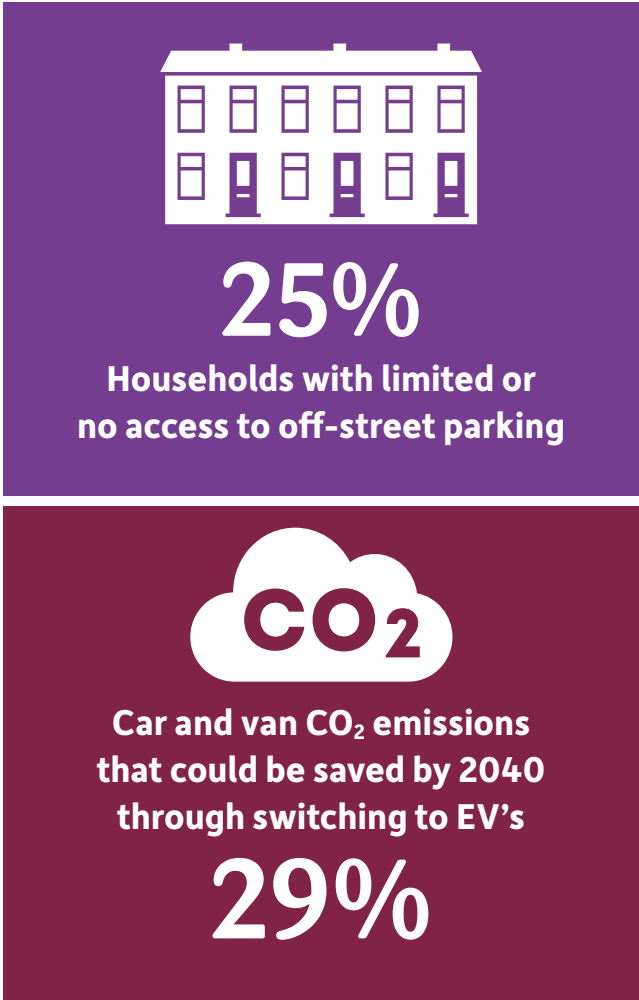
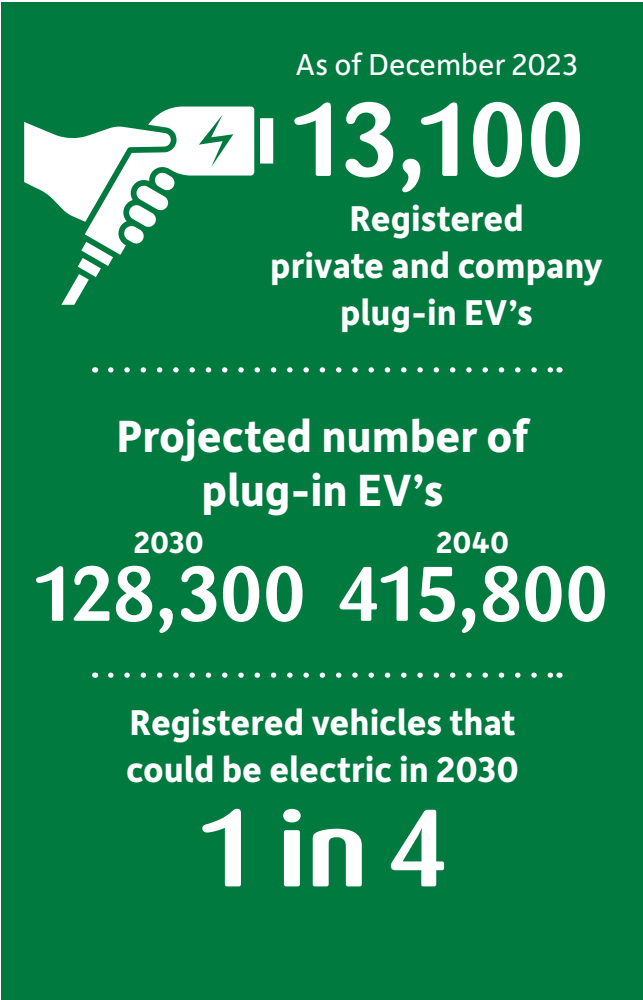
## Leicestershire Health and Wellbeing Strategy 2022-2032

- Identifies air quality and its impact on health and health inequalities across Leicestershire as a priority for success.

## Leicestershire Highways Design Guide

- Outlines the latest Building Regulations and the requirement for developers to fully engage with the planning process to support charging needs and to liaise closely with the LPA's regarding chargepoint provision in new developments.

# Leicestershire in Numbers



# Public Consultation

Summary of the main findings from our EV countywide survey  
16th October - 30th November 2023

540

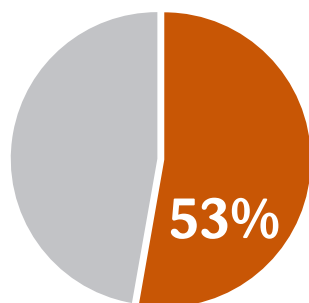
Online survey responses

548

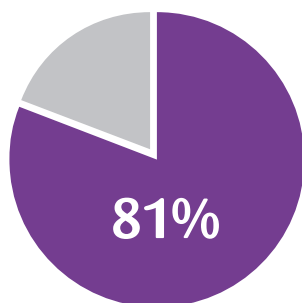
Identified potential  
EV chargepoints

Main barriers to owning an EV:

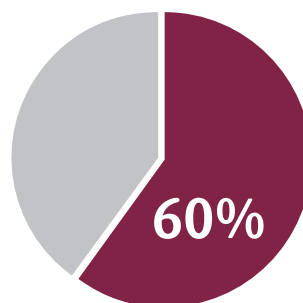
- Vehicle cost
- Lack of local chargepoints
- Using chargepoints



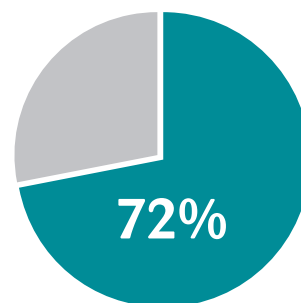
Respondents currently own an EV.



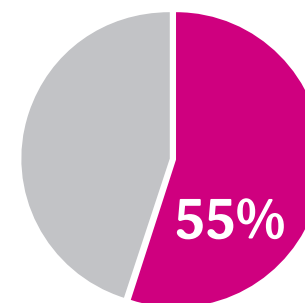
Respondents who own an EV, have a home chargepoint.



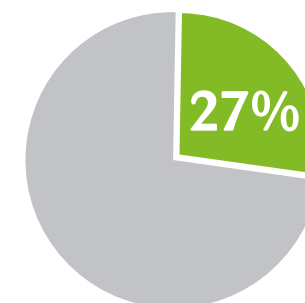
Current EV owners who do not have home charging would like on-street chargepoints.



Respondents suggested chargepoints in urban settlements.



Respondents suggested chargepoints at destinations, such as supermarkets, leisure and shopping centres.



Respondents suggested chargepoints in on-street locations.

# Challenges



The cost of public rapid and ultra-rapid chargepoints remains relatively high compared to the cost of filling up an equivalent petrol vehicle.

EV's are not completely carbon neutral, when energy supply and manufacturing are considered.

EV growth will have a significant impact on electricity demand. If not managed carefully, the additional demand will create challenges across all sections of the energy system, particularly at peak times.

EV's do not address network congestion. Issues still remain around single occupancy vehicle numbers and managing demand on the network.

Other technologies may be needed as a balanced approach to achieve net zero, including alternative fuels, increased energy efficiency and carbon offsetting.

Supporting the transition to alternative fuels amidst the need to reduce overall travel, reduce car use and encouraging active travel and public transport use.

# Objective 1

## To continue to develop an evidence base of Leicestershire's current and future EV charging needs.

To underpin our Strategy, it is vital that we continue to collect, maintain, and develop a robust evidence base of EV data and intelligence from a wide range of sources. This will allow the Council to make informed decisions and deliver the most appropriate charging solutions in the right location to meet current and future demand.



### Community Engagement and Feedback

- We will maintain an open dialogue with our communities and seek feedback through the Council's EV website.
- Community engagement will help the Authority to understand the evolving needs and expectations of our residents, ensuring that our infrastructure focuses on the user and effectively addresses their requirements.



### National EV Support Tools

- We will utilise all available data and insight from national support organisations and platforms (e.g. Cenex, Energy Savings Trust (EST) and Zap Map), to track current uptake and understand future demand.



### Local EV Support Tools

- We will continue to develop a bespoke Leicestershire EV map-based planning tool, to help collect and maintain all available EV related spatial data. The tool will allow the authority to identify any gaps in public chargepoint provision and highlight any network constraints, supporting future site selection decisions.
- We will also develop an understanding of wider countywide energy requirements and the demand on the grid through the authority's emerging Local Area Energy Plan (LAEP).



### Business and Fleet Engagement and Feedback

- We will seek to engage with local businesses, large fleet operators, and the taxi industry to understand EV charging requirements and constraints (for business and employees), and any opportunities to aid the expansion of chargepoints.

# Objective 2

## To install EV chargepoint assets and expand the existing public charging network.

We are committed to playing our part in expanding the number of public EV chargepoints across the county and we are determined to deliver the most appropriate charging solution in the right location, to meet the needs of EV drivers and encourage the widespread adoption of EVs.



### Strategic Planning and Location Identification

To meet the goals of our Strategy and ensure we deliver value for public money, we will take a strategic evidence led approach to planning EV charging infrastructure. Noting any future site selection for public infrastructure is likely to be on a case-by-case basis, we will consider the following as **priorities** as part of any site selection and prioritisation process to target any available public funding:

#### Land availability

In this Strategy, we can only commit our own assets and land we own or maintain, (e.g. Public highway and council owned sites).

#### Residential parking demand

Evidence of residential parking demand where home charging is not possible.

#### Equitable distribution

Geographical spread of charging points across the county, to address gaps in provision. Includes an equitable mix of commercially attractive high density urban sites and less commercially attractive lower density rural sites.

#### Demand responsive

Suitable sites identified by residents in our Countywide EV Survey.

#### Electricity supply

Sites with adequate grid capacity.



### Range of Charging Solutions

- Our approach will see a mix of overnight chargepoints and a small number of rapid chargepoints introduced across the county, on residential streets, high streets, and main roads dependent on demand.
- We will also consider utilising our street lighting assets, where these are located kerbside, to provide additional overnight chargepoints.



### Delivery Plans

- We will seek to publish delivery plans on the Council's EV website highlighting proposed locations.
- Locations will be subject to local engagement and the availability of funding.



# Objective 3

## To work collaboratively with partners and stakeholders on the provision and delivery of EV chargepoints across Leicestershire.

The Council acknowledges that the provision and delivery of local chargepoints necessitates a partnership approach. To create a comprehensive charging network, we recognise the value of collaboration with partners and stakeholders across various sectors.



### Government Agencies & Transport Bodies

- We will work closely with government agencies (e.g. Department for Transport and the Office for Zero Emissions Vehicles), Energy Savings Trust and Midlands Connect for support and to maximise any available funding in line with our Strategy.



### Local Communities

- The support and involvement of local communities, businesses and other key stakeholder groups is vital to ensure that the needs and aspirations of local residents are at the heart of our Strategy. Through actively engaging with local residents, businesses and stakeholder groups, we can identify key locations for chargepoints, raise awareness of chargepoint provision and promote EV uptake.
- We will aim to ensure that we engage and communicate with key stakeholders throughout the delivery process, and provide them with accurate, timely and appropriate information on our EV charging proposals and any associated construction works.



### Local Authorities & National Highways

- We will plan and coordinate wider chargepoint delivery across the county with district councils, to ensure a coherent approach and maximise the benefits of EV charging infrastructure across the county.
- We will also work with neighbouring local authorities and National Highways to understand and coordinate cross-boundary opportunities and challenges.



### Industry Partners

- We will seek to collaborate with industry partners, such as Chargepoint Operators (CPO's), District Network Operators (DNO's), and technology companies. These private entities will assist in funding, designing, and implementing chargepoints in locations across the county.



### Developers

- In accordance with the Council's Leicestershire Highways Design Guide, we will work with private developers and landowners through the planning process to ensure adequate provision of public (and private) EV charging infrastructure is part of new developments. In all cases we will expect that charging infrastructure is installed in accordance with the latest Building Regulations.
- We are keen to engage with developers and will welcome proposals that incorporate higher levels of provision than that set out in the Building Regulations.

# Objective 4

## To carefully consider how EV chargepoint assets are integrated into the public highway.

It is essential when designing and expanding the chargepoint network that our infrastructure is fully accessible and carefully integrated into the public highway. This means ensuring our chargepoints can be used by anyone that needs them and the appropriate infrastructure is designed to be accessible to all users. It also means chargepoints will not become a new barrier to people walking, wheeling or cycling on our streets. This will benefit everyone, particularly disabled people who may rely on access to a car.



### Safety and Security

- We recognise that an electric car is an expensive purchase and owners may be reluctant to leave it out of sight of their homes to charge.
- We will seek to ensure EV charging infrastructure is located in secure locations and does not impede the safety and security of others, so all people will feel safe using the public charging network at all times.



### Other Road Users

- We are keen for the highway to remain free of obstructions from chargepoints and trailing cables. We will seek to ensure the infrastructure we install maintains an acceptable pavement width and does not obstruct pavements, carriageways or presents a safety risk to pedestrians and other road users.
- Wherever possible we will look to utilise existing parking bays and existing street furniture.
- Parking spaces for EV charging will not be added in places where parking spaces are currently not allowed, nor where they could disrupt traffic flow, cyclists or pedestrians.
- Parking for chargepoints will not replace parking designated for people with a disability or space allocated for bicycle parking.
- Where necessary, we will consider introducing Traffic Regulation Orders (TROs), to safeguard and manage chargepoint parking.



### Local Engagement

- All proposed chargepoint locations set out in our delivery plans will be subject to local engagement.
- We will seek to gain local support for infrastructure delivery through engagement with residents, businesses and key stakeholder groups.



### Accessibility

- We will solely focus on sites where charging is available for public users, 24 hours a day, and is not dedicated to a private individual or business.
- Chargepoint design and placement will meet all necessary accessibility standards and guidance in accordance with the Equality Act 2010.
- The Council recognises the importance of building inclusive charging infrastructure and will take account of the latest specifications laid out by the British Standard Institution and apply them in so far as they are reasonably practicable.

# Objective 5

## Seek to facilitate further funding opportunities for EV chargepoint infrastructure.

Securing external funding is critical to the successful implementation and expansion of our Strategy ambitions and our partner's delivery plans. Continued government funding commitments for EV charging infrastructure will be vital to ensure the Council and its partners can continue to help expand the public EV charging network in the longer term.



### Local Investment

- We will consider opportunities to facilitate targeted local community, parish council or business funded public EV charging infrastructure within the highway.



### Government Funding

- The main elements of this Strategy will be delivered through funding from the Office for Zero Emission Vehicles (OZEV) Local Electric Vehicle Infrastructure (LEVI) funding allocation.
- We will align our proposals with the LEVI funding criteria and submit applications to maximise our chances of success. However, the funding will only go so far, and we will need to explore other government funding, such as opportunities through the Local Transport Fund, tapping into these funding resources to secure financial support for further installation and expansion of EV chargepoints.
- Government funding is vital to fill gaps in provision, help maintain consumer confidence and accelerate the transition. We have a role to play in securing this funding, and enabling the delivery of infrastructure.
- We will take opportunities with our partners to encourage government for future funding commitments for EV charging infrastructure.



### Private Investment

- Through collaboration with private entities such as CPOs, we will encourage private sector investment to supplement any public EV funding we secure from government. It is essential we adopt a commercial approach, to maximise opportunities to draw in private investment and provide long term certainty on availability, reliability and ongoing maintenance costs and any potential revenue generation.
- We will also consider investment opportunities, dedicated to sustainable growth, innovation and green projects.



### Provide Third Party Support

- Where possible, we will seek to support partner led funding bids for public (and private) EV charging infrastructure in off-street locations, such as car parks, workplaces or depots.
- Through the planning process, we will also seek to support district councils, to secure any potential developer contributions towards EV charging infrastructure.

# Objective 6

## To ensure the long-term sustainability of chargepoints across Leicestershire.

It is vital that we ensure the longevity and sustainability of our chargepoint assets. With a commitment to performance monitoring, innovation, and adaptability, we will work to safeguard their ongoing viability and effectiveness. It is recognised that the EV market is rapidly evolving, therefore our Strategy and associated Delivery Plans will be reviewed as technology advances and new national policies and funding streams are brought forward to ensure long term sustainability. This will ensure that we are best placed to deliver the wider benefits that the transition to EVs will bring to our county.



### Promoting and Raising Awareness

- We will promote and raise awareness of EVs, their benefits and charging technology by providing information through our EV website, social media platforms, education, and public campaigns and events.



### Adapt and Innovate

- We will work closely with our CPO partners to assess our sites to ensure that our charging stations remain up-to-date and capable of meeting the needs of next-generation EVs.
- Subject to further government guidance, we will work with suppliers to explore future opportunities to embrace new technology and innovative charging solutions, such as solar powered infrastructure and solutions using homeowner's own electricity supply.



### Alternative Funding Models

- Streets can provide space for electric vehicle charging, but for the most efficient chargepoints - Rapids, Ultra Rapids and charging hubs, more space is needed. We will therefore explore alternative funding models and opportunities to work with CPOs, delivery partners and key landowners to identify suitable sites and develop business cases for these chargepoint types.



### Operation and Management

- Our CPO partners will carry out chargepoint maintenance and handle issues raised by customers. In doing so our CPO partner will identify areas for improvement, ensure that chargepoint assets remain operational and well maintained, minimise downtime and enhance the user experience.

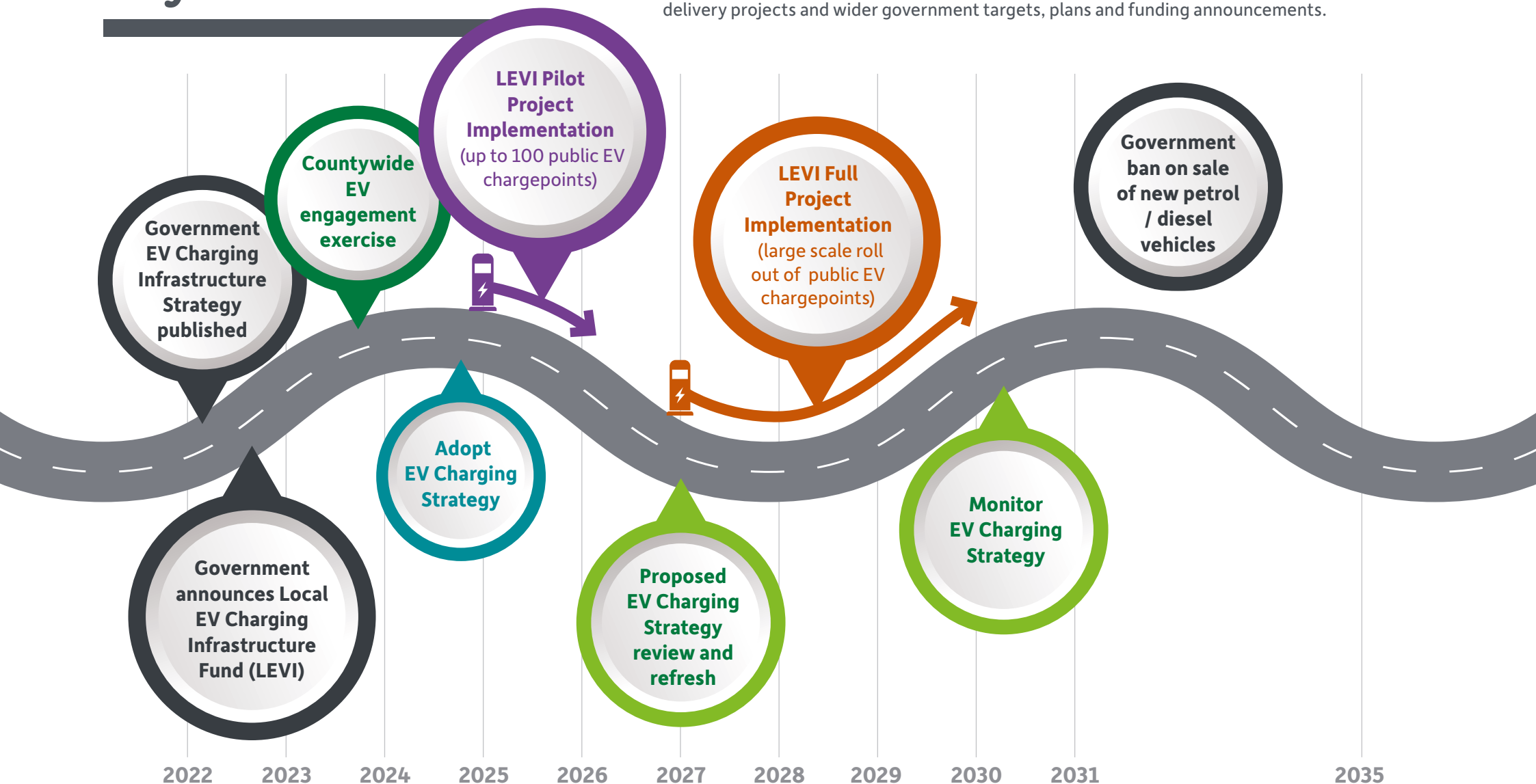


### Performance Monitoring

- Based on data and intelligence from our CPO partner(s), we will monitor the number of chargepoints installed, usage, and feedback from users to improve the service provided.
- We will continue to monitor and report progress with regards to the number of public chargepoints and the rate of electric vehicle ownership in Leicestershire, as part of a suite of Key Performance Indicators (KPIs) that the Council is responsible for delivering against the Council's Strategic Plan (2022-26).

# Key Milestones

The key milestones below illustrate the timeline for developing, adopting, reviewing and refreshing our EV Charging Strategy, and how this aligns with our LEVI funded chargepoint delivery projects and wider government targets, plans and funding announcements.



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