

# Electric Vehicle Charging Infrastructure Strategy for Newcastle

Newcastle City Council March 2024

## 1. Welcome

Welcome to Newcastle's Electric Vehicle Charging Infrastructure Strategy. This strategy has been developed to respond to the current and expected future need for EV charging infrastructure across the city. The strategy sets how Newcastle City Council (referred to as the 'Council') will support increasing uptake of electric vehicles (referred to as 'EV') on roads across the city.

This strategy has a 5 year time horizon which is considered a reasonable delivery period to successfully complete the proposed actions, however the strategy will be reviewed and updated in 2 years' time (March 2026 - July 2026).

By adopting this strategy, the Council is demonstrating a commitment to promote the uptake and deployment of EVs.

This document has 3 sections:

- The **Introduction** section which explains the purpose of the strategy and the vision and aims for EV roll-out across the city;
- The **Action Plan** section provides a summary of the approach and key actions that the Council intends to take to deliver the strategy; and
- Finally, the **Key Considerations** section details the other aspects that have been considered and will be addressed in the implementation of the strategy.

## 2. Introduction

Newcastle City Council (the Council) has provided a range of public charge points for Electric Vehicles (EVs) since 2015. However, under investment in the existing network of EV charge points over the years, as well as recent developments in EV technology and much greater demand for EVs has meant that our city-wide EV charging infrastructure needs renewing, upgrading and extending over the coming months and years.

### Context

The Government has announced that: 80% of new cars and 70% of new vans sold in Great Britain will now be zero emission by 2030, increasing to 100% by 2035.

An EV must be connected to an electrical source to recharge the battery. Charging infrastructure is essential as EVs cannot operate without recharging. To support the forecast growth in the number of EVs on the roads, extensive provision of charging infrastructure will be necessary across Newcastle.

There is already a clear trend of increasing numbers of EVs on the road in Newcastle (see **Figure 1.1**) and across the UK; a recent update from the government is available [here](#).

Whilst as a total of all vehicles, EVs still make up a small proportion, the rate of change is increasing quickly and we recognise the speed and scale of the EV transition that has happened in other countries in Europe.

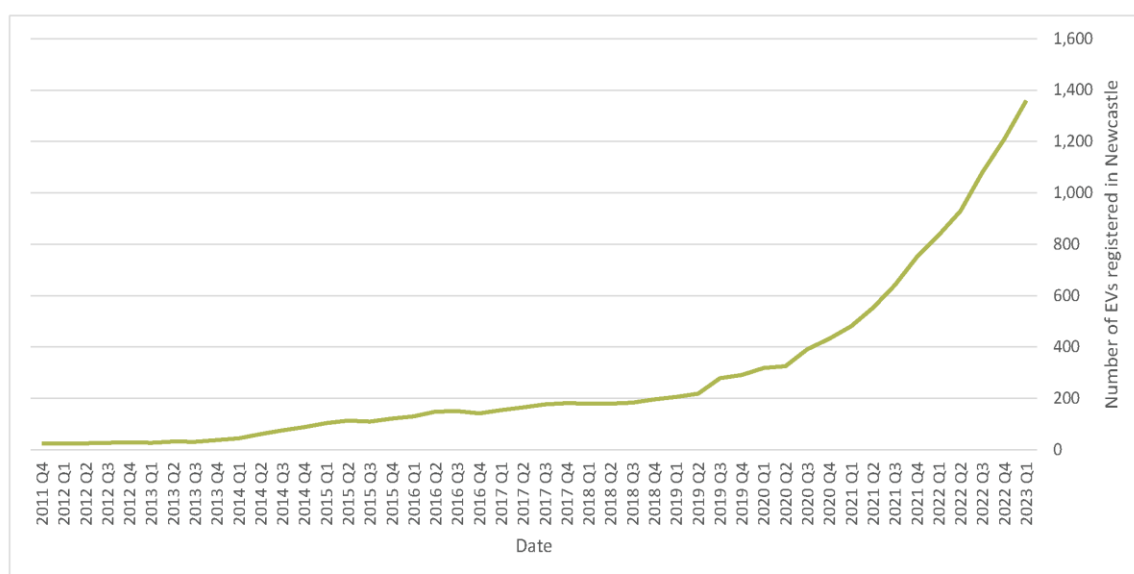
Here in Newcastle, we have seen an increase in the number of requests from residents seeking permission to charge their EV in public highways where they don't have a driveway to allow for the safe charging of the vehicle.

Through the North East Zero Emission Vehicle Policy, Transport North East have identified that the region may need 28,000 EV charge points in the next 15 years to support the transition to EVs. There are currently around 900 publicly accessible charging posts in the North East region provided by both the public and private sector, approximately 630 of which are fast and 219 of those are rapid and ultra-rapid charge points, please refer to Table 1.1, mainly located at the edge of urban centres, motorway services and in more rural locations.

Approximately 30% of the North East region's public charging networks hosted by local authorities is now very old, and are either faulty or out of use. This has led to dissatisfaction among residents, with 42% of those surveyed in a regional EV Charging Behaviour study in 2020 stating that charge points they tried to use were sometimes not working.

As a result of the above, there is a need for the Council to be responsive to this increasing demand for EVs and to plan for the infrastructure required to support the transition. This strategy has been prepared in response to these changes in the UK's vehicle market.

**Figure 1.1: Total number of registered battery electric vehicles in Newcastle**



## Purpose

There are several reasons why an individual or business may choose to buy an EV, including: reduced fuel costs, lower road tax, green credentials, tax incentives or grants, higher potential resale value, among others.

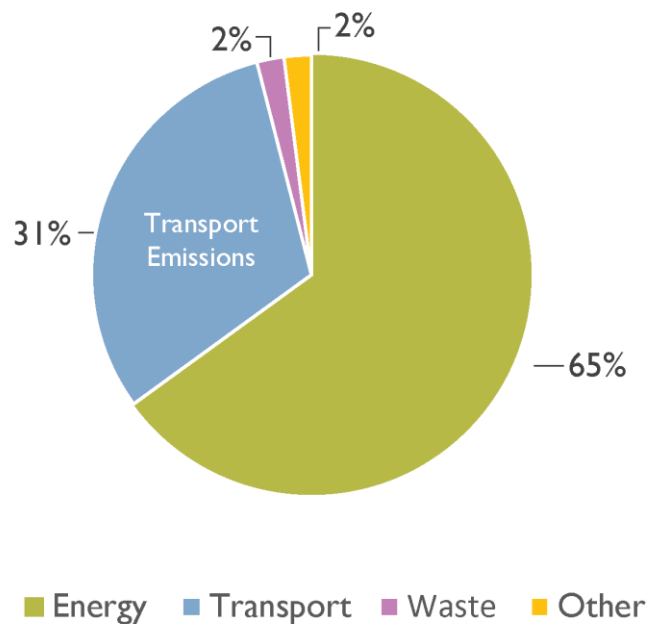
However, there are 4 main reasons why the Council wants to deliver modern EV charging infrastructure in Newcastle. These are:

1. EVs release no tailpipe emissions which can help **improve air quality** in the local area. Each local authority in the UK carries out assessments of air quality in their area; where a local authority finds places where the national air quality objectives are not met, they are required to declare an Air Quality Management Areas (AQMA). These AQMAs are locations where Nitrogen Oxide (and other harmful pollutants) levels exceed the national maximum threshold. It is estimated that air pollution shortens the life of many people in the UK.

Long-term exposure to air pollution reduces life expectancy by increasing deaths from cardiovascular and respiratory conditions, and from lung cancer. In Newcastle, there are two AQMAs: AQMA No. 1b (City Centre) and AQMA No. 5 (Gosforth). The Council is implementing the Air Quality Action Plan to deliver improvements to air quality within the city. The main cause of this pollution is vehicle emissions, so moving to electric cars with no tailpipe emissions is good for our residents and visitors.

2. Support **conformance with the Clean Air Zone**, the Council wishes to support the deployment of EV charging infrastructure that can enable local businesses, organisations and taxis to make the transition towards EVs.
3. Achieving our **city-wide carbon reduction** commitment, Net Zero by 2030. The transport sector contributes to 31% of the city's emissions as displayed in **Figure 1.2**. The vast majority of these emissions come from private motor vehicles. EVs can be powered by electricity produced directly from renewable energy sources or from the local electricity grid. The UK's electricity supply is rapidly decarbonising, as a result of the planned closure of our remaining coal fired power stations and the rapid increase in deployment of renewable energy and other low-carbon energy sources. This means that in the UK, the lifetime carbon footprint of manufacturing, running and disposing of an electric vehicle is much lower than for a conventional fossil fuel vehicle.
4. **Encourage visitors to the city**. Existing EV owners rely mostly on home and workplace charging but report a desire for more extensive and faster public charging to enable them to undertake longer journeys. Installing EV charging infrastructure enables Newcastle to be ready for changes in fuelling requirements, which is particularly important for Newcastle's visitor economy.

**Figure 1.2 : Newcastle carbon emissions inventory by sector (Scopes 1 and 2, 2022 data)**



## **Vision**

The Council's vision is to create a leading network of charging infrastructure in neighbourhoods and city destinations that will support and accelerate the transition towards EVs.

## **Aims**

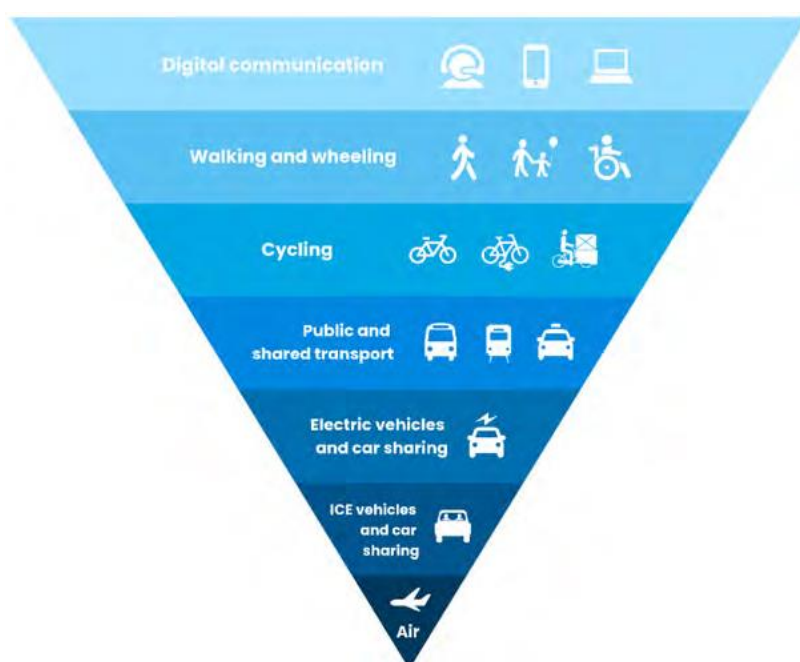
By implementing this strategy, the Council will:

1. Increase targeted provision of EV charging infrastructure in residential neighbourhoods across Newcastle offering a core service that guarantees EV charging facilities are available.
2. Enable a phased roll-out of destination charge points. Locations will be selected to meet current and future demand from residents, businesses and visitors, fill in gaps in the charging network, and have good access from the strategic road network.
3. Maintain the ability to set as low a charging tariff as possible.
4. Encourage a shift towards residents having access to a private vehicle rather than ownership of one, through deployment and expansion of an EV car club in the city.
5. Support other Council programmes such as the Clean Air Zone, the deployment of Low Traffic Neighbourhoods and access to rapid and ultra-rapid charge points for particular needs (e.g. electric taxi charging).
6. Work with Transport North East and the regional Mayor (once elected) to help with the roll out of charging infrastructure as identified in the North East Zero Emission Vehicle Policy.

Reducing car travel and achieving modal shift in favour of public transport and active travel is a key priority for the Council. The Council's intention is not to increase the number of vehicles on our roads, and this strategy forms part of the city's Net Zero Action Plan and the North East Transport Plan. These plans are focussed on realigning Newcastle's transport and highways system with the Sustainable Transport Hierarchy as shown in **Figure 1.3**.

The Council recognise the important role that EVs can play in shifting existing vehicles on our roads away from polluting and noisy petrol and diesel vehicles to cleaner EVs. We also recognise the important role that EV car clubs can play in supporting residents move towards EVs whilst reducing the number of private vehicles on the road and saving our residents money.

**Figure 1.3: Sustainable Transport Hierarchy**



### **Why is the Council involved in EV charging infrastructure?**

The Council is uniquely positioned to provide strategically located EV charging infrastructure that will support residents, commuters, fleets and visitors to conveniently and affordably recharge EVs. By maintaining ownership of a core network, the Council can set user tariffs ensuring we have control over one of the critical factors in delivering a charging network available for all, and ensure equitable deployment.

### **Charge point type and charging speeds**

In selecting the most appropriate charging unit for a particular location, the Council will match the power output of the charge points to suit average dwell times, so that the right type of charger is available at the right location. **Table 1.1** provides a guide to which EV charge point are suitable at particular locations.

As EV batteries get larger, there is increasing demand for rapid and ultra-rapid charge points. The Council recognises that the city needs a mix of the different charge point types which matches the dwell times of various vehicles. The charge point type needs to be carefully matched to the user requirement at each specific site.

Section 2 of this strategy provides more information on the approach proposed in different parts of the city and for different use cases.

**Table 1.1: EV charge point type guide**

| Type                  | Capacity (kW) | Charge time<br>(from empty to<br>80% charge of a<br>60kWh battery) | Dwell time       | Suitable at...                                                                                                          |
|-----------------------|---------------|--------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------|
| Slow                  | 3-7           | 16 hours                                                           | 7 hours plus     | Residential properties                                                                                                  |
| Fast                  | 7-22          | 2-7 hours                                                          | 1-7 hours        | Residential areas (publicly available charge points), destinations, workplaces, and use by fleet or commercial vehicles |
| Rapid and Ultra Rapid | 50+           | 1 hour                                                             | Less than 1 hour | Destinations, rapid charging hubs, taxi ranks, en route charging, and use by fleet or commercial vehicles               |

### 3. Action Plan

This section summarises the key actions that the Council intends to take to deliver to take a first significant step towards our vision. A range of regional funding has been secured and delivered over recent years to deploy EV charge points. This has included Go Ultra Low North East which delivered the UK's first electric vehicle filling station and rapid charging hubs, the Local Growth Fund EV Infrastructure Project which installed EV charging infrastructure at 7 priority sites across the region, and the Go Ultra Low Taxi Project which installed rapid electric charge points for taxis and private hire vehicles in 10 locations across the North East.

Transport North East commissioned a study in 2020 entitled Enabling Electric Vehicle Charging in North East England 2021 to 2025 which identified priority sites for EV charging infrastructure and formed the evidence base for the North East Zero Emission Vehicle Policy.

## Priority Actions

In order to accelerate the deployment of EV charge points across Newcastle, we recognise the need to work closely with regional partners, particularly Transport North East.

There are 5 proposed Priority Actions covering a range of charging infrastructure scenarios across the city – they are:

- **Action 1: Deliver an inclusive neighbourhood charge point roll-out**
- **Action 2: Establish a network of publicly available destination EV charge points**
- **Action 3: Deliver an EV car club model**
- **Action 4: Accelerate EV transition within the Council and Your Homes**

### Newcastle fleet

- **Action 5: Deploy rapid charging infrastructure for electric taxis**

Several Secondary Actions are also listed where the Council has influence but not direct control over the outcomes.

Delivery of the strategy will be in stages and deployed in an incremental manner.

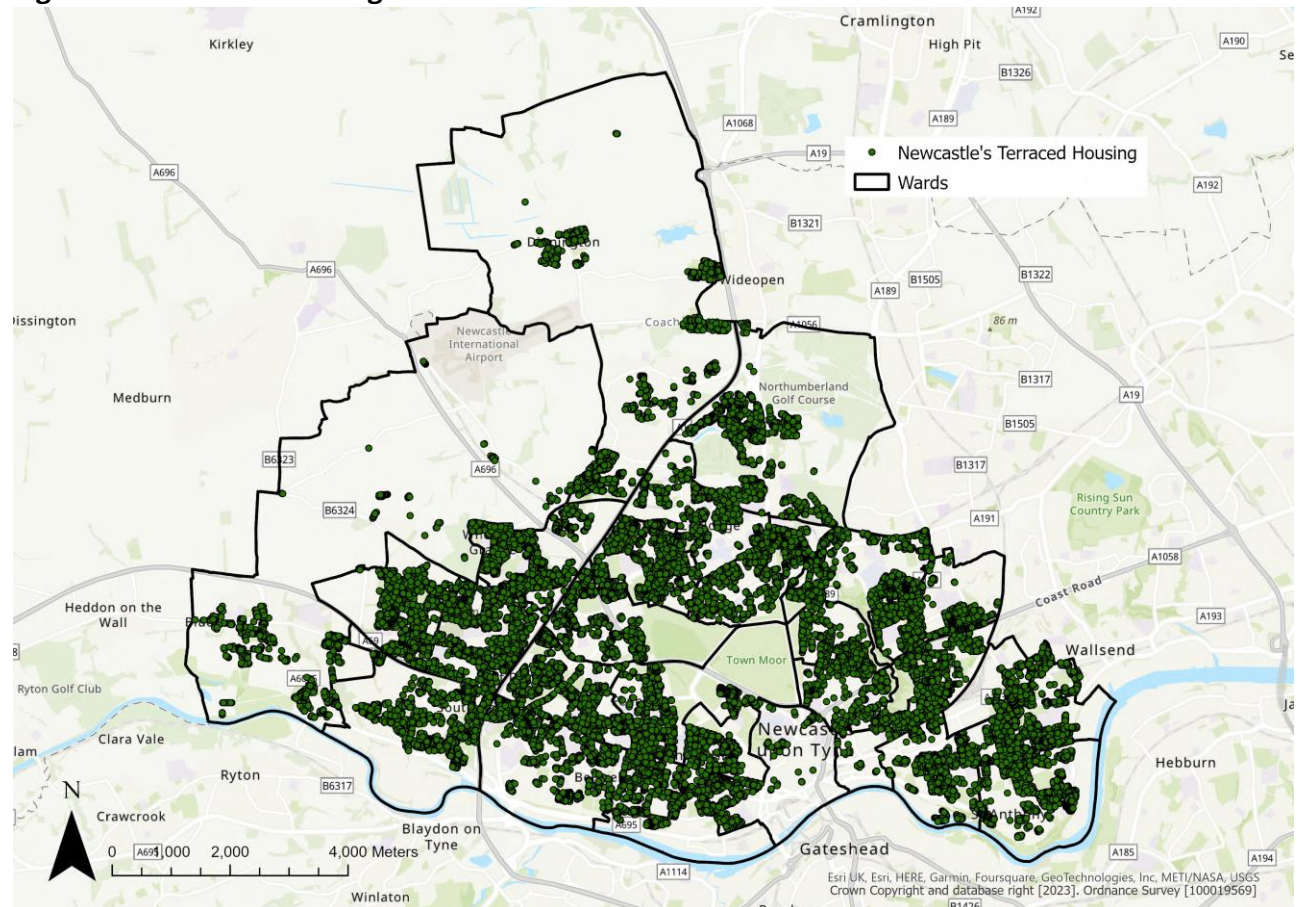
## Action 1 : Deliver an inclusive neighbourhood charge point roll-out

It is estimated that approximately half of households in Newcastle do not have off street parking (Census 2011). Areas of the city where residents do not have off-street parking options have not been able to take advantage of national projects such as the Electric Vehicle Homecharge Scheme to pay for the cost of a charge point. Therefore, the Council recognises the need to have a greater focus on EV charging infrastructure in neighbourhoods with below average levels of off-street parking.

**Figure 2.1** shows areas of terraced housing in Newcastle where off-street parking is likely to be most limited.

The Council recognises that whilst home charging may be the cheapest and most convenient way to charge a vehicle for many, it is not the only solution with destination, workplace, and rapid charging hubs offering potential alternatives.

**Figure 2.1: Terraced housing in Newcastle**



A spatial mapping exercise has been undertaken to determine possible charge point locations in residential areas across the city. **Figure 2.2** presents the outcome of this assessment, showing target EV charge point locations around the city that would offer Newcastle residents a transformative residential charging offer, particularly in areas with no off-street parking.

A total of 83 target locations for residential EV charge points have been identified. This results in a maximum 10 minute walking time **from almost all residential parts of the city to a EV charge point as shown by the 800m buffer in Figure 2.2**. In many cases, residents will live closer to these EV charge points and will have access to multiple EV charge points in different directions. The locations are subject to change during detailed site assessments. Site deployment will be prioritised over the next 5 years based on site suitability, availability or funding and need for charge points with a particular focus on residential areas with limited or no off-street parking. Each target location will be assessed further for suitability and prioritised according to a range of factors, including:

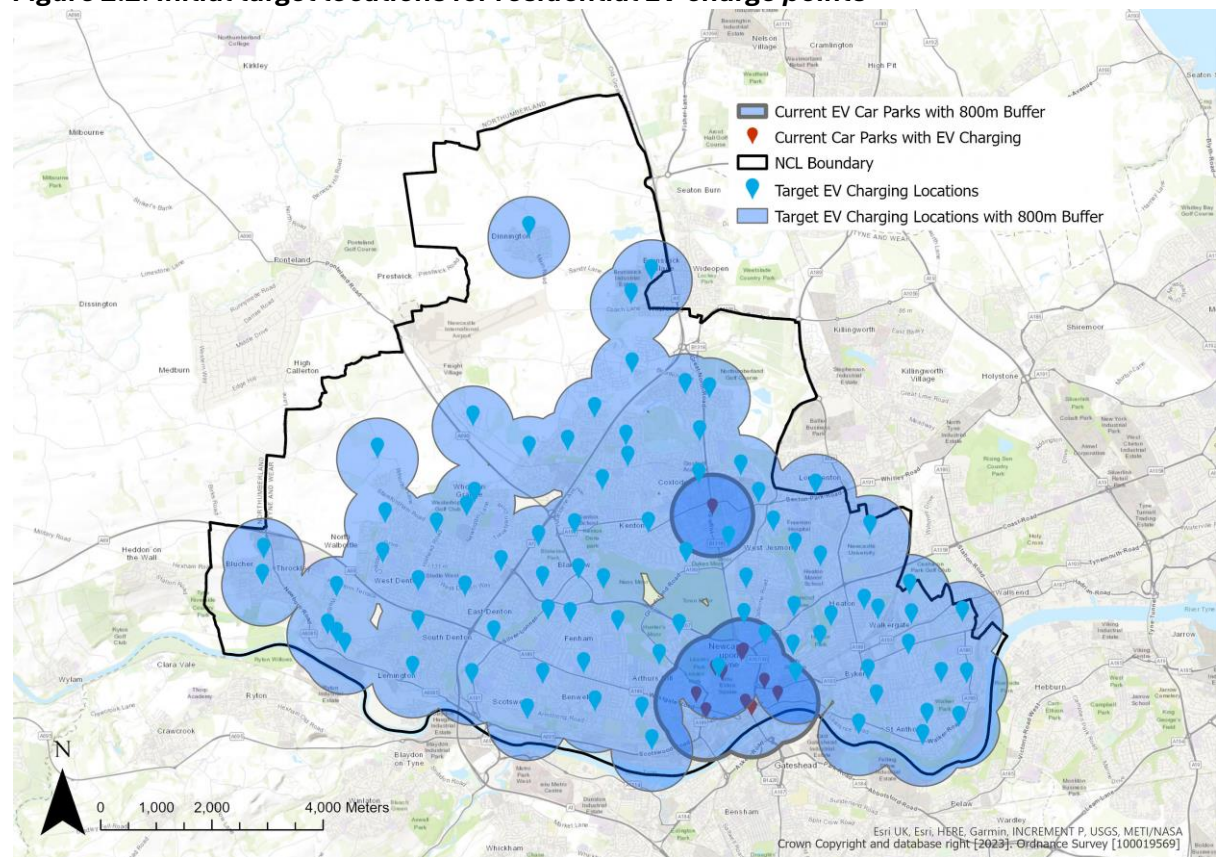
- Proximity of public car parks or suitable Council land holdings;
- Availability of off-street parking in residential properties;
- Presence of lighting columns at front of pavement (subject to technical and cost viability assessment);
- Car ownership levels – this will determine whether pairing EV charging infrastructure with an EV car club may be more appropriate for the area;
- Width of road and footway and ability to integrate EV charging bays without unacceptably restricting footway access;

- Presence of disabled parking spaces;
- Density of Council and Your Homes Newcastle fleet operations; and
- Potential to install EV charge points in areas that are (or may be in the near future) a Low Traffic Neighbourhood.

Each EV charge point target location will be considered for either a single headed or double headed charging unit, or multiple units where there is a clear demand. For each EV charge point location, a fast or rapid charger unit (or both) will be considered, depending on grid availability and cost of installation.

All residential EV charge points, whether off-street or on-street, will be publicly accessible. EV charge points will not be considered personal to any individual or property.

**Figure 2.2: Initial target locations for residential EV charge points**

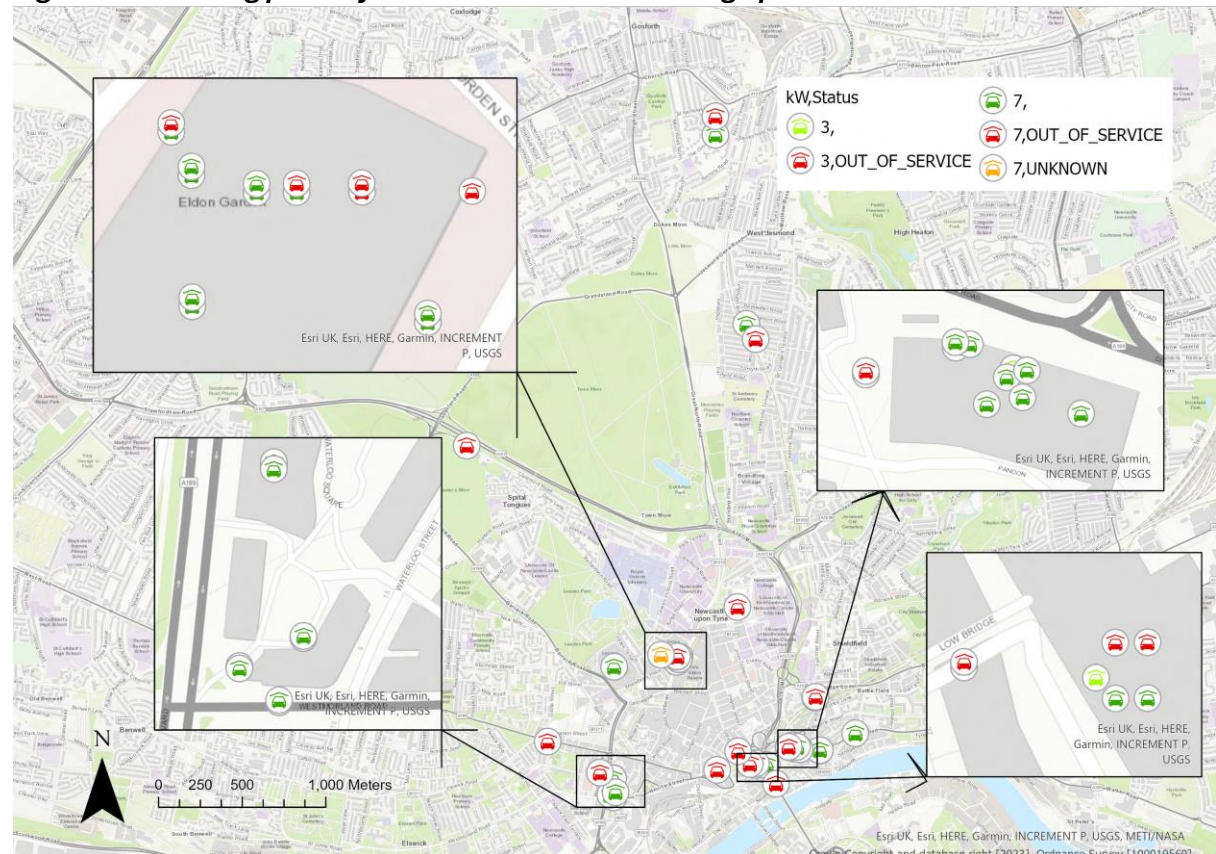


## Action 2 : Establish a network of publicly available destination EV charge points

Uptake of electric vehicles is increasing rapidly and, whilst most users currently prefer to charge at home, there is also demand for destination charging. The Council owns and manages a range of public estate across the city including public car parks, leisure centres, community centres, libraries, among other property types. These can provide ideal locations for destination fast charging and the strategic positioning of charge points to support local communities, visitors, and business charging. There are a number of existing EV charge points installed at destinations around the city, which are shown in **Figure 2.3**.

In addition, there are 14 rapid charge points located at Helix Car Park and 4 rapid charge points at the Fastned site in Kingston Park which are not yet operational. Many of the EV charge points shown in **Figure 2.3** are slow (3kW or 7kW rated) charge points and many are not functional. The Council intends to renew and where possible up-rate these existing charge points so that they are all fully functional.

**Figure 2.3: Existing publicly-available Council EV charge points in Newcastle**



A long list of potential Council owned sites has also been assessed for future EV charge points. These locations are currently under further technical investigation to determine the right charge point for each location. The following asset types have been identified as first order priority for deploying EV charge points:

- Council owned surface car parks near district shopping centres, leisure facilities, hospitals, parks and gardens, and higher and further education sites.
- Install new charge points at city centre Council owned Multi Storey Car Parks including Eldon Square, Dean Street, Manors and NUFC.

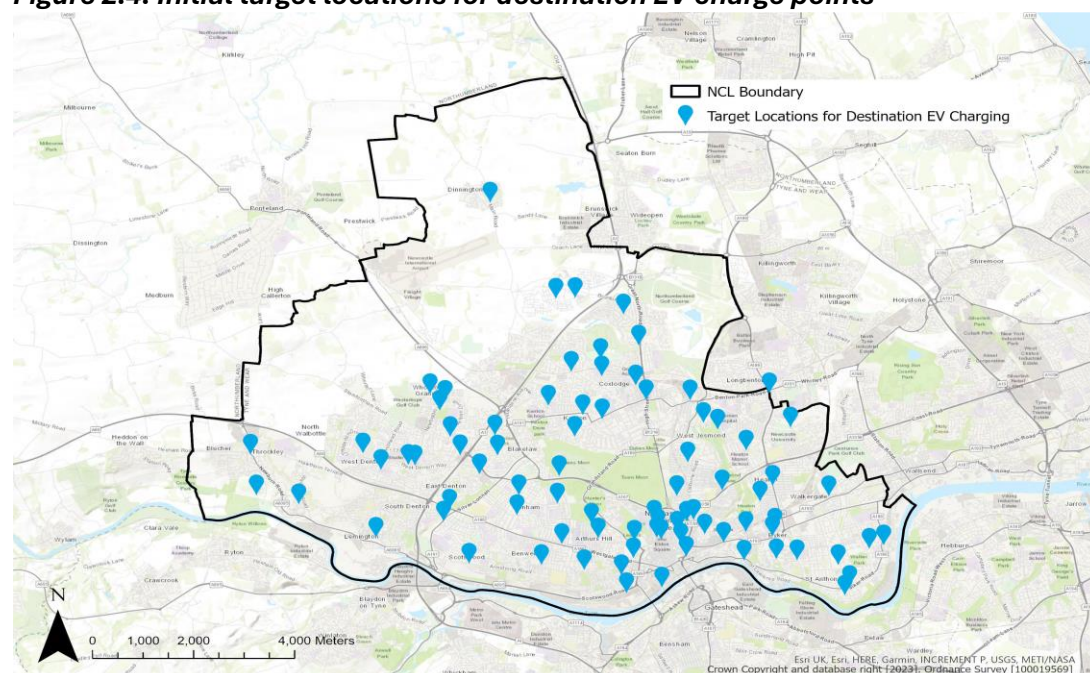
The total number of EV charge points proposed is **86 for renewal and 167 for new EV charge point installation**. The target locations for these charge points are shown in **Figure 2.4**. There are **53 target locations identified for destination EV charge points in the city**. The majority of these target locations are on Council property, however 26 of the locations are owned by third parties. The Council intends to engage with these third parties to coordinate EV charging infrastructure roll-out across the city. Following completion of this first phase of destination charge point roll out, the Council will monitor charge point use and other market trends to inform future provision of destination charge points.

## Park and Rides

We are working with transport partners across the city who are also developing their future EV charging infrastructure plans. Through Transport North East's Levelling Up Bid, Nexus have applied for funding to implement more EV charging Infrastructure within the Park and Ride locations connected to their Metro stops within both the city boundary and the wider region. The park and rides within the city boundary are Callerton Parkway, Regent Centre, Bank Foot, Kingston Park and Newcastle Great Park. The Levelling Up Funding should hopefully be accepted by Autumn with plans to implement this infrastructure at the end of the year.

The Council will work closely with the Park and Ride owners and operators to encourage the introduction of more EV charge points at the sites both within the city and just outside the city.

**Figure 2.4: Initial target locations for destination EV charge points**

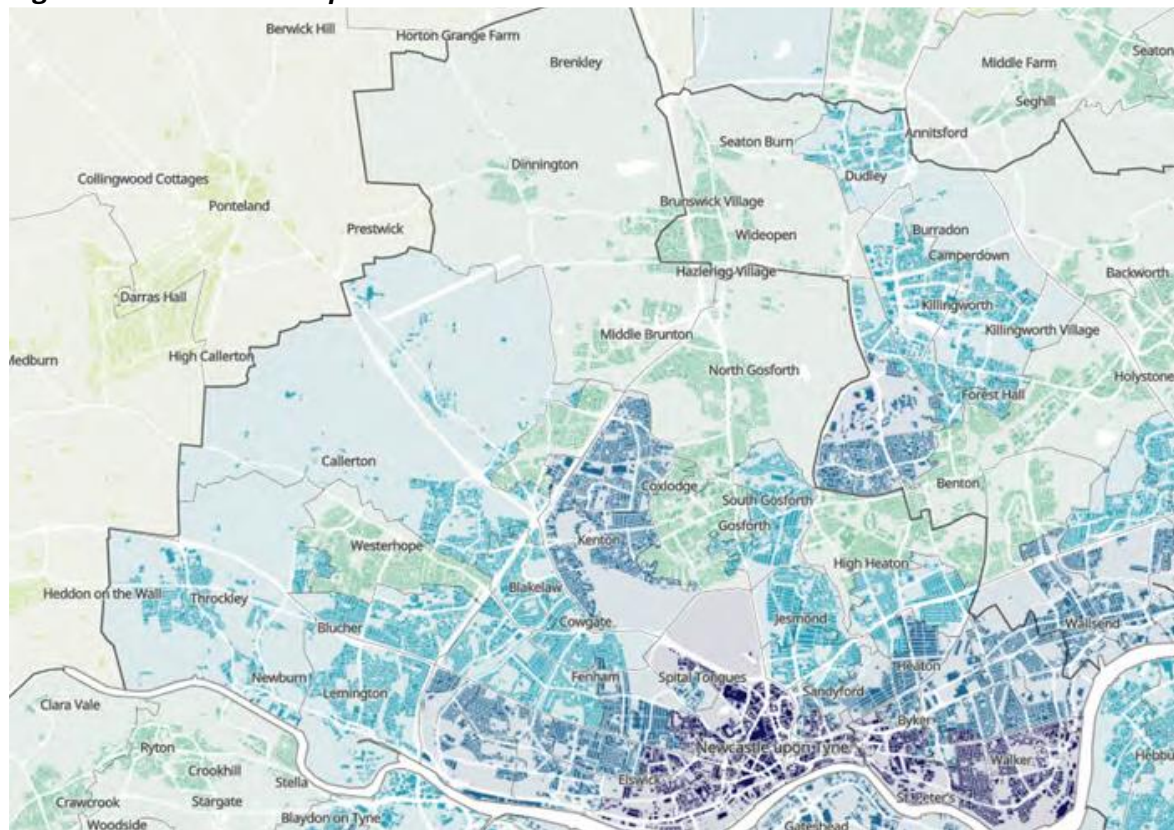


### **Action 3 : Deliver an EV car club model**

Levels of car ownership in Newcastle are among some of the lowest in the UK with 36.6% of households having no car or van in the 2021 Census. However, the levels of car ownership vary dramatically across the city as shown in **Figure 2.5**. The highest ward in Newcastle (Newcastle City Centre) has 66.4% of households without cars or vans.

The Council recognises the importance of ensuring equity and fairness in the transition towards EVs, particularly the economic and leisure opportunities that access to a private vehicle can offer. We recognise that access to EVs is more important than ownership of EVs. We want to ensure that access to travel options is enhanced in communities with low car ownership through community EV car clubs as opposed to individual or household ownership of EVs.

**Figure 2.5: Car ownership levels across Newcastle**



There is currently a ‘pay by the hour’ car club operating in Newcastle, run by Co-wheels which operate 24 cars across the city. This car club contract expires in August 2024 and the Council intends to re-tender the car club contract with a specific requirement that:

1. The car club vehicles operating in the city shift rapidly towards EVs, as EV charge points and EV car club bays are deployed by the Council.
2. The car club is expanded in scale and reach, providing accessibility to EVs to residents in wards with low car ownership levels.

By the end of the implementation period of this strategy, the Council intends for there to be **at least 4 car club EVs in every ward in the city with at least 6 car club EVs in wards with the lowest levels of car ownership.** A 'densification' EV car club pilot will be run in one neighbourhood in the city to establish whether greater ability of residents to rely on access to an EV car club will enable reduced ownership of cars. Infrastructure investment in EV charge points will need to accompany the EV car club roll out, and the Council will discuss this in detail with the car club operator(s) who submit eligible tenders.

#### ***Action 4 : Accelerate EV transition within the Council and Your Homes Newcastle fleet***

The Council operates a large and diverse operational vehicle fleet. Large numbers of the Council's fleet are targeted for replacement by EVs as part of our current Green Fleet Procurement Policy.

Current technology now makes the cost of smaller electric vehicles (cars, vans and some specialist equipment such as road sweepers) a viable replacement proposition with range and whole life costs comparable (and in many cases favourable) to petrol and diesel equivalents. The technology for larger and/or more specialised vehicles, is still developing, making the whole life costs for those vehicles a riskier financial proposition for the Council and other fleet operators. Large and / or specialist vehicles will be transitioned to an Ultra Low Emission Vehicle (ULEV) when the technology is suitable, and whole life costs have fallen sufficiently.

To support the fleet transition to EVs, the Council intends to install approximately **93 additional EV charge points in depots, office accommodation and other Council properties** around the city as part of this strategy. The key locations for deployment include:

- Newcastle Civic Centre
- Condercum Road depot
- Newington Road depot
- Leazes Lane depot
- Sandhills garden waste recycling centre
- Palatine Products
- Welford Day Centre

In addition to depot, office accommodation and home charging, the Council recognises that the fleet operates in neighbourhoods across the city. As such, the deployment of neighbourhood charge points (see Action 1) will support the fleet transition to EV and avoid unnecessary return trips to Council sites for charging.

### **Action 5 : Deploy rapid charging infrastructure for electric taxis**

The Council will identify charging infrastructure needs for taxis operating within the city through engagement via the Council's taxi vehicles and driver licensing function.

The Clean Air Zone (CAZ) implemented in 2023 impacts older and more polluted taxis and these vehicles are required to meet national CAZ emission requirements which are set by the Government. Funding of up to £3,500 can be provided by the Government for taxis to replace non-compliant vehicles that would be charged to enter the CAZ with Ultra Low Emission Vehicle alternatives.

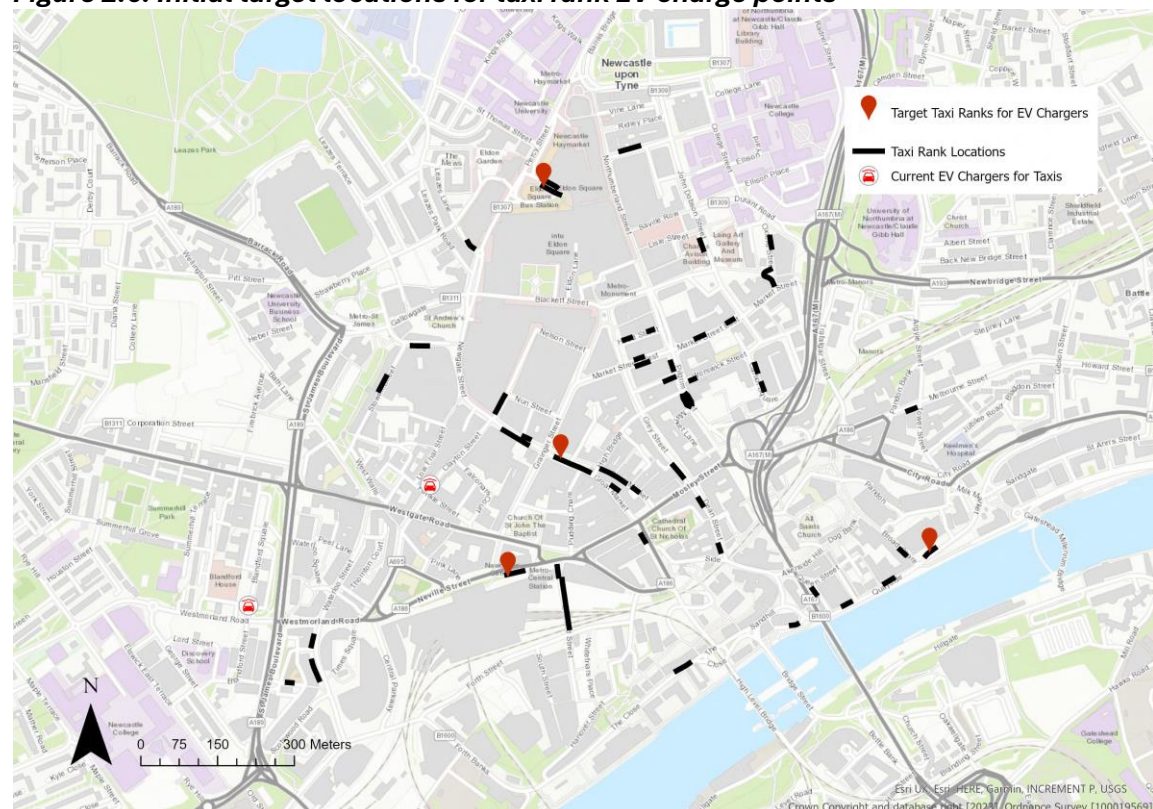
This will encourage taxis to shift to EVs, which increases the importance of having more rapid and ultra-rapid EV charge points in the city centre, specifically at taxi ranks.

The Council recognises that to be most effective, taxis will require rapid and ultra-rapid charge points at a number of key taxi ranks across the city. Newcastle has already deployed 2 rapid charge points for taxis at Blandford Square and Clayton Street. However, more will be needed as the taxi fleet transition to electric.

From initial assessments, **4 target locations for taxi rank EV charge points** are identified in **Figure 2.6**. Each charge point target location is expected to comprise a double headed charging points resulting in up to **8 rapid or ultra-rapid charge points across the 4 target locations**.

The Council will work with regional partners including Transport North East to secure funding for these rapid or ultra-rapid charge points. We will engage with taxi operators to confirm the optimal locations.

**Figure 2.6: Initial target locations for taxi rank EV charge points**



## **Secondary Actions**

In addition to the Priority Actions set out above, listed below are some Secondary Actions that the Council propose to undertake:

### **Support workplace charging**

Several private businesses in Newcastle have already commissioned charge points in their car parks. New requirements to replace older and more polluting taxis, vans, buses, coaches and heavy goods vehicles through the Clean Air Zone will likely increase the number of EV charge points required at private businesses around Newcastle.

The Council is supportive of workplace charging and welcomes the expansion of this infrastructure in the city, as this supports consumer choice, wider geographic spread, and faster deployment rates. The Council will support in principle (wherever reasonable and appropriate) proposals from local businesses looking to install EV charge points and transition their fleets to EVs.

Businesses are encouraged to consider grant schemes from the Government for EV charge points. The Green New Deal Fund has been established by the North of Tyne Combined Authority to support low carbon projects in the region. Businesses can apply for up to 50% of investment required for low carbon projects like EV charging solutions. GNDF can invest between £0.2m and £2m into supporting workplace charging.

### **Condition private developers and landowners to provide EV charge points on future development sites**

The Council is the Local Planning Authority for the city of Newcastle. This means that the planning team can place appropriate requirements on new developments. As part of our planning policy, the Council will develop an EV policy for new developments which sets out standards for charge point provision. Developers should note the requirements of Building Regulations in relation to EV charge point provision for parking spaces in developments and consider the EV requirements set out in Section 9 of Newcastle's Developer Guidance for Transport Assessments, Travel Plans and Parking.

Development proposals which include parking facilities or which will be likely to generate vehicle movements or vehicle ownership will be expected to integrate the provision of EV charging infrastructure into the design and layout of the development.

Training and support will be provided to the planning team to ensure planning applications fully provide for future uptake of EVs.

## **Support commercial networks of EV charge points including rapid charging hubs**

The role of the Council's EV charging infrastructure networks is to provide a core service that guarantees EV charging facilities are available to support the aims of this strategy. The Council supports further deployment of commercial networks of charge points which offer greater consumer choice, geographical spread of charge points and enhanced roll out rates. Commercial operators will continue to be free to set their own tariffs to support their business cases to roll out additional charge points in appropriate locations around the city at the earliest opportunity.

Rapid charging hubs for en route traffic are one example of these commercial networks. Generally, these rapid charging hubs are located on (or very close to) the trunk road network and accommodate rapid or ultra-rapid charge points.

E-hub charging provides opportunities to meet the charging needs of a range of users including business fleet vehicles, visitors, long distance travellers, taxis, multi-modal transport users, freight and logistics companies. Integrating renewable energy generation and energy storage provides opportunities to overcome electrical grid capacity issues at rapid charging hubs.

The Council is well placed to work with landowners, stakeholders, and operators to effectively deliver rapid charging hubs through partnerships and collaboration across the public and private sector.

At this stage, rapid charging hubs are considered a lower order priority than delivering neighbourhood EV charging (see Action 1) and destination EV charging (see Action 2) across the city.

The Council is aware that there is a significant and rapidly growing offer already from the private sector in this market, so this is not currently a focus of this strategy and will be reviewed in the next update to this strategy.

#### **4. Key Considerations**

This section provides information on key considerations

##### **Charge point installation and operations**

The Council will oversee the procurement and installation of charge points on Council assets across the city. The Council is considering three options in relation to the ongoing operations and maintenance of EV charging infrastructure:

1. Contract a supplier to operate and maintain the Council's public EV charging network on our behalf; or
2. Deliver an internal operation and maintenance team from within the Council; or
3. A blended approach of both models.

In addition, Newcastle will implement a dedicated EV Charging Infrastructure team responsible for managing the ongoing operations and maintenance of the network and ensuring suitable response times for any issues that arise including a 24/7 helpline for users.

##### **Accessibility**

All EV public charging will be accessible to residents, businesses and visitors alike. Particular care will be given to ensuring that a suitable number of EV charging bays in car parks are sufficiently sized to enable users with disabilities to access the spaces.

##### **Newcastle EV Charging App**

A Newcastle EV Charging App will be made available showing the location of Council operated charge points around the city with added features to also be developed. A map will also be published showing the planned future charge point locations and the likely date (month/year) that each will become operational.

##### **Supply of zero carbon electricity**

In order for this strategy to support the city-wide Net Zero by 2030 commitment, the Council will ensure that all Council operated charge points are supplied with electricity from zero carbon electricity sources through the corporate energy contract.

## **Charging tariffs**

The Council believes that the fairest way to provide an EV charging network is for users to pay a tariff based on usage so that day to day operation of the network is funded by users. The Council is committed to a simple and clear charging fee for EV charge points:

- There will be no connection fee for the Council installed and operated charge points in the city. Users will just pay for each kWh of electricity that they use for charging.
- You will be able to access the charge points without subscription via the Newcastle EV Charging App (guest payment section) or using a contactless payment on the charge point (only applicable to some charge points and will require a contactless bank card, Apple Pay or Google Pay). The Council does not intend to charge any additional fee for card payments.
- A subscription option will also be available which will offer App payments (saved detail option for faster payments) and use of an RFID access card for certain users.
- The Council will set the tariffs at the lowest possible price point whilst ensuring the tariff:
- Pays for the electricity that is used, including associated charges from the energy supplier (standing charges, admin fee, etc);
- Recovers the initial cost of the install and ongoing operation of the network (including a reactive maintenance fund) of charge points across the city; and
- Deliver a reasonable return on investment.

## **Parking tariffs**

Parking bays with EV charging infrastructure included must be used only by electric vehicles that are plugged in and charging and will have a time restriction to prevent abuse. This will be determined by the type of charger associated with the charge point bay. These bays will be supported by new Traffic Regulation Order (TRO) and will be accompanied by DfT approved signs.

From 2013-2019, EV users did not pay parking fees in EV charging bays. Instead, users of our charge points in Council car parks have received up to 12 hours free parking and electric charging as long as they are plugged into a charger. This has had some unintended consequences where regular users plug in to get free parking even if they don't need to charge, resulting in several issues:

Users who do need to charge their EVs, can't access a charger

The Council loses out on charging fees which pay for the running of the EV charging network

The Council loses out on parking revenue which makes the case for increasing the number of charge points more difficult.

### **The council's current tariff policy for EV users in all council owned car parks:**

During charging hours normal car parking fees apply. Users can stay as long as each car park requirements allow provided, they pay for parking and are plugged into a charger.

During out of hours (specific to each car parks restrictions), no car parking fees apply. There will be no time restriction on charge duration till daytime hours when normal parking fees reapply.

### **The Council's parking tariff policy for EV users will be updated so that:**

#### **1. EV charge points in the Council's city centre Multi Storey Car Parks**

In multi storey car parks normal parking fees apply. Users can stay as long as they like as long as they pay for parking and are plugged into a charger. Users will continue to pay the normal rate for charging but once at 100% charge, there will be a grace period of 15 minutes and then further fees will be levied for overstay on charging through the charge point. The overstay fee is to encourage users to use these facilities appropriately and vacate the space once their car is charged.

#### **2. EV charge points in Council car parks in residential areas (all sites except those listed in item 1 above)**

##### **Charging hours**

During charging hours (specific to each car parks restrictions), normal car parking fees apply, and users will pay the normal network rate for charging for a maximum of 4 hours. You will have a 15 minute grace period and then further fees through the charge point will apply. The council will consider options for partially discounting the cost of parking against the electricity tariff, further details to be provided in on the charge point.

##### **Out of hours**

During out of hours (specific to each car parks restrictions), no car parking fees apply, and users will pay the normal network rate for charging. There will be no time restriction on charge duration till daytime hours when normal parking fees reapply. There will be no grace period so users must disconnect their vehicle before normal parking fees reapply.

#### **3. Rapid and ultra-rapid charge points**

Normal parking fees apply as per car park requirements. Users will continue to pay the normal network rate for charging. The council will not restrict length of time stayed in car park which will allow all users to get a full charge from 0-100% battery state of charge. Once at 100% charge, there will be a grace period of 15 minutes and then further fees will be levied for overstay on charging through the charge point. The overstay fee is to encourage users to use these facilities appropriately.

**All normal parking and charge point fees will be clearly detailed on the charge point at the charging location. The council reserve the right to amend any aspect of the above enforcement requirements in the future.**

## Branding and signage

In order to create an easily recognisable EV charging brand across the city, all EV charge points will have allocated parking bays which will be demarcated with distinct markings and colour scheme. A possible branding is shown in **Figure 3.1**, however the Newcastle specific brand will be further developed.

Clear signage will be in place at each charging location showing the guidelines and requirements for use of the system, with a transparent pricing structure on each EV charge point unit. All other road markings in and around the bay will conform with Highways Authority requirements.

## Fire safety

Lithium-ion batteries are the predominant type of rechargeable battery used in EVs, which are at highest risk of fire when being charged, particularly if a cell is defective and unable to correctly convert the supplied electrical energy into stored chemical energy. The Council will continue to monitor fire safety considerations in relation to EV charge points and EVs in general. Where there is the potential for higher fire risk from EV charge points, this will be managed appropriately through fire hazard management and good practice risk control measures.

## Funding

There are a number of funding options available to support the further roll out of EV charging infrastructure in Newcastle. These are summarised in **Table 3.1**. Available funding options will be monitored and accessed by the Council to expedite the deployment of EV charging infrastructure across the city in accordance with this strategy.

**Figure 3.1: Possible branding option (indicative only) and signage**

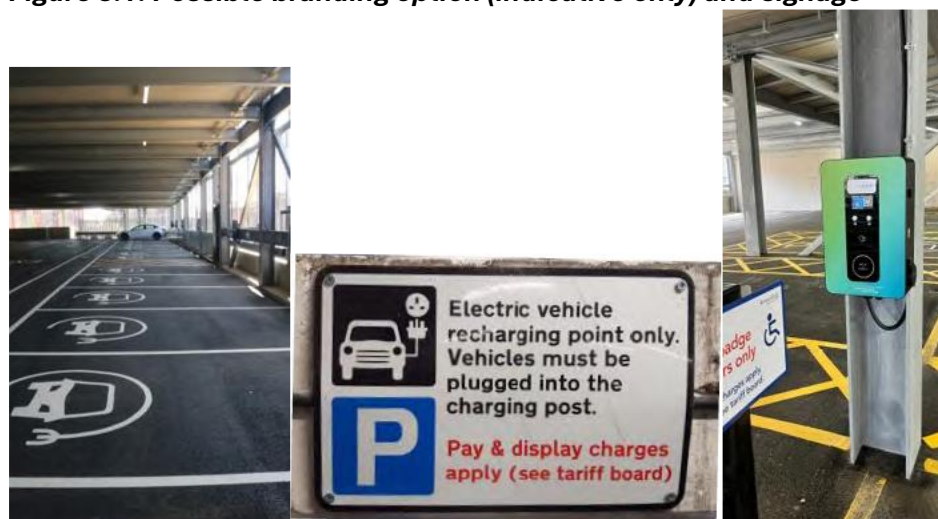


**Table 3.1: EV charging infrastructure funding sources**

| <b>Fund</b>                                         | <b>Funder</b>                                                                                  | <b>Description of Fund</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On-street Residential Chargepoint Scheme (ORCS)     | The Office for Zero Emission Vehicles                                                          | Partial (60%) funding for local authorities to install charge points in residential neighbourhoods without access to off-street parking. Capital costs for procurement and installation up to £7,500 per charge point. Charge points located off-street (for example, within public car parks) are also eligible for funding if it can be demonstrated they meet a local residential charging need.                                                                                                      |
| Local Electric Vehicle Infrastructure scheme (LEVI) | The Office for Zero Emission Vehicles                                                          | Funding for local authorities to encourage large-scale, ambitious and commercially innovative projects that aim to utilise more private sector investment.<br>LEVI funding is split into two funding streams:<br>Capital Funding – to help cover capital costs of procuring and installing public charge points<br><br>Capability Funding – to help support local authorities to develop their resource via training and upskilling new roles surrounding the development of EV charging infrastructure. |
| Levelling Up Fund                                   | Department for Levelling Up, Housing and Communities, HM Treasury and Department for Transport | Through Transport North East and the North East Joint Transport Committee, Newcastle has secured £183k of funding to install 4 fast (22kW) and 2 rapid (50kW) charge points.                                                                                                                                                                                                                                                                                                                             |
| Workplace Charging Scheme (WCS)                     | The Office for Zero Emission Vehicles                                                          | The Workplace Charging Scheme (WCS) is a voucher-based scheme that provides eligible applicants with support towards the upfront costs of the purchase and installation of electric vehicle (EV) charge points. The WCS is open to businesses, charities and public sector organisations. The grant covers up to 75% of the total costs of the purchase and installation of EV charge points (inclusive of VAT), capped at a maximum of £350 per socket and 40 sockets across all sites per applicant.   |

|                                                      |                           |                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| City Region Sustainable Transport Settlement (CRSTS) | Department for Transport  | This new fund is for 8 eligible English city regions including the North East to receive £4.2 billion of additional funding for local transport networks. These settlements could be used to develop mass transit networks and sustainable transport options, open up new areas of the region for employment, leisure and housing, and create real innovation in transport to solve problems. |
| Future devolution funding                            | Future combined authority | It is likely that part of any future devolution funding may assign funds for EV charging infrastructure deployment. This will be reviewed as the devolution process continues.                                                                                                                                                                                                                |

For individuals looking to deploy EV charging, the EV charge point grant provides funding of up to 75% towards the cost of installing EV smart charge points at domestic properties across the UK. It replaced the Electric Vehicle Homecharge Scheme (EVHS) on 1 April 2022. Some key links are listed below:

- EV chargepoint and infrastructure grants for landlords
- EV chargepoint grant if you own or rent a flat
- EV chargepoint grant for flat owner-occupiers and people living in rented properties
- EV infrastructure grant for residential car parks
- EV infrastructure grant for staff and fleets

The Workplace Charging Scheme is a voucher-based scheme that provides support towards the up-front costs of the purchase and installation of electric vehicle charge-points, for eligible businesses, charities and public sector organisations.

## **Consultation**

In order to determine the latent and potential demand of a neighbourhood, we have created a short e-form where members of the public, businesses and organisations can suggest a new location for an EV charge point. This is linked on the Greener Newcastle home page.

The information from this consultation process will inform our future EV charge point roll out and we encourage residents to complete this form. The Council will also engage with local members in locations where the potential location of charge points could be deemed unwelcome or controversial such as areas where parking is already at a premium. The target neighbourhoods will be refined, and areas may be added, based on the results from these (and other) engagement exercises.

## **Monitoring Progress**

In order to monitor progress of this strategy and determine whether the aims are being fulfilled, the Council will track a number of direct and proxy measures as part of a Monitoring and Verification programme. The measures listed below will be compiled in a short form report published at the end of each financial year presenting time-series analysis:

- Official statistics on the uptake (ownership levels) of EVs within Newcastle local authority boundary
- Number of public charge points per 100,000 population
- Air quality improvements in areas with dense deployment of EV charging
- Number of charge points deployed (by type and according to actions listed in this strategy) and operational status of charge points
- Geographic coverage of charge point network - % of neighbourhoods with a public charge point accessible within 5 minutes' walk (400m)
- Usage levels (including frequency and duration of charge point use, kWh of electricity drawn and % charge point utilisation)
- Reliability of charge points (% charge point availability)