



West
Yorkshire
Combined
Authority

Tracy
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Mayor of
West Yorkshire

West Yorkshire Electric Vehicle Infrastructure Strategy



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Introduction

The challenge to meet our carbon targets for the transport sector is significant. Transport is the highest emitting sector in the region, accounting for 37% of all greenhouse gases (GHG) emitted¹. These emissions are dominated by road transport, which accounts for 97% of transport related GHG emissions in West Yorkshire². Road transport is also the biggest contributor to roadside air pollution and West Yorkshire's urban areas have some of the highest levels of transport emissions in the UK. Pollutants such as nitrogen dioxide and particulate matter increase the risk of cardiovascular and respiratory diseases.

The challenge to meet our emissions target is reflected in the urgent activity we are undertaking to reduce private car use where we can in favour of public transport and active travel, and we are working to ensure cleaner vehicles are on our roads through the introduction of zero emission buses and electric vehicle (EV) charging points.

The UK Government has committed to net zero carbon emissions by 2050, with no new petrol or diesel cars to be sold after 2030, and for all new cars and vans to be fully zero emission at the tailpipe by 2035 via the reinstated zero emissions vehicle (ZEV) mandate.³ Phase out dates for other vehicle types are currently being consulted on and established by the government. With advancements in electric vehicle technology, the lack of availability and access to reliable charging infrastructure is a critical barrier to the adoption of EVs. Therefore, it is vital to ensure a comprehensive and accessible network is established to facilitate the smooth transition to EVs for a cleaner and greener West Yorkshire.

The transition to zero emission vehicles, such as EVs, will be a major contributor to achieving our climate and air quality ambition. However, this shift alone will not achieve our emission targets. Meeting our targets will also require a considerable shift to more sustainable modes of travel such as walking, wheeling, cycling and public transport. Therefore, it is vital that our work supports sustainable travel choices, promoting alternatives to private car use alongside the transition to zero emission vehicles.



Background

The [UK Electric Vehicle Infrastructure Strategy](#) was published in March 2022⁴ setting out the government's approach to delivering charging infrastructure to 2030, to remove charging infrastructure barriers and accelerate the pace of EV adoption. The strategy sets out that most drivers will do most of their charging at home, overnight, and highlights the need to focus interventions on public chargepoints for two main purposes: to enable long distance journeys, and to support those without off-street parking.

The UK strategy highlights the critical role local government has in planning and delivering EV charging infrastructure to ensure coverage reaches all areas, setting out a requirement for combined and local authorities to develop ambitious local EV charging infrastructure strategies. The outcome of the 2022 'Future of transport regulatory review' consultation was published in October 2023⁵ which sought views on introducing a statutory duty on Local Transport Authorities to plan for and deliver EV infrastructure. This confirmed the government intention to introduce statutory obligations to both plan, and to ensure provision of, EV chargepoints.

We have an ambitious emissions reduction target for West Yorkshire, committing the region to achieving net-zero carbon by 2038. The second, updated West Yorkshire Climate and Environment Action Plan (2025-2038)⁶ was adopted by the Combined Authority in April 2025

and is the Mayor and Combined Authority's response to tackling the climate emergency, protecting the environment alongside achieving net zero. The Climate and Environment Plan sets out long-term objectives to achieve the region's 2038 net zero carbon target alongside the actions the Combined Authority will take – both on its own and in partnership with others – to support West Yorkshire to achieve its ambition. This includes action to accelerate EV chargepoint delivery. Our Carbon Emissions Reduction Pathways show that, to decarbonise transport in West Yorkshire, we need to see (in summary): more journeys completed by active modes and public transport, widespread uptake of EVs and the switching of freight to sustainable modes.

The Mayor's West Yorkshire Local Transport Plan (LTP) was adopted in March 2026 after being co-developed by the Combined Authority and local authority partners. This is the new statutory LTP for the region, replacing the Transport Strategy 2040 adopted in 2017. The new LTP will deliver our ambitions for transport across West Yorkshire, as well as help deliver on the Mayoral pledge to tackle the climate emergency and protect the environment. An overarching ambition for the Combined Authority is delivering inclusive growth to ensure everyone in West Yorkshire can contribute to and enjoy the benefits of a strong economy and a decent standard of living. New infrastructure delivery must be designed to support the region's inclusive growth goals to ensure that the transport network supports residents and businesses and is easy to use, fair and accessible to all. In addition, the LTP sets out a commitment to increase the number of EV charging points across West Yorkshire, looking to overcome the barriers of unequal access and allowing West Yorkshire to make progress in achieving our zero emission ambitions.

The Combined Authority's Local Growth Plan⁷ brings together each mission on the West Yorkshire Plan⁸, creating good growth and setting the region's direction over ten years. It tackles the key barriers holding back growth in the region, reflecting the challenges in the region we have identified below, investment, skills and connectivity. The plan is built upon the idea that growth will not be pursued at any cost and that each action in the plan is driven by the principles of inclusion, health and wellbeing and sustainability. These principles underpin the strategy and delivery of the Local Electric Vehicle Infrastructure (LEVI) Scheme by ensuring that those who are disadvantaged or from underrepresented groups, benefit from the prosperity that growth delivers. This is further supported in our On-Street Guidance, which prioritises vulnerable road users.

Poor air quality is a significant challenge in the region. There are currently 24 Air Quality Management Areas in West Yorkshire⁹ and Bradford's Class C+ Clean Air Zone¹⁰ went live in September 2022 to bring levels of nitrogen dioxide within legal limits. The Public Health Outcomes Indicator for air pollution points to the equivalent of one in twenty deaths in West Yorkshire each year being attributable to poor air quality, which has been estimated to cost £16 billion to the UK economy. Areas experiencing high levels of deprivation are often disproportionately affected by poor air quality, with one fifth of neighbourhoods in West Yorkshire included in the 10% most deprived in England, this equates to more than half a million people impacted.¹¹

The transition to alternative fuels, such as EVs, will be a major contributor to achieving our climate and air quality ambition. Electrification is just one of the tools available to decarbonise

road transport, alongside other zero emission fuels such as hydrogen, as set out in our LTP. This strategy is part of a suite of policy and strategy work to support the new LTP and the updated Climate and Environment Plan looking at the transition to alternative fuels, which includes the emerging West Yorkshire Hydrogen Use Case and our wider work into other potential alternative fuels.

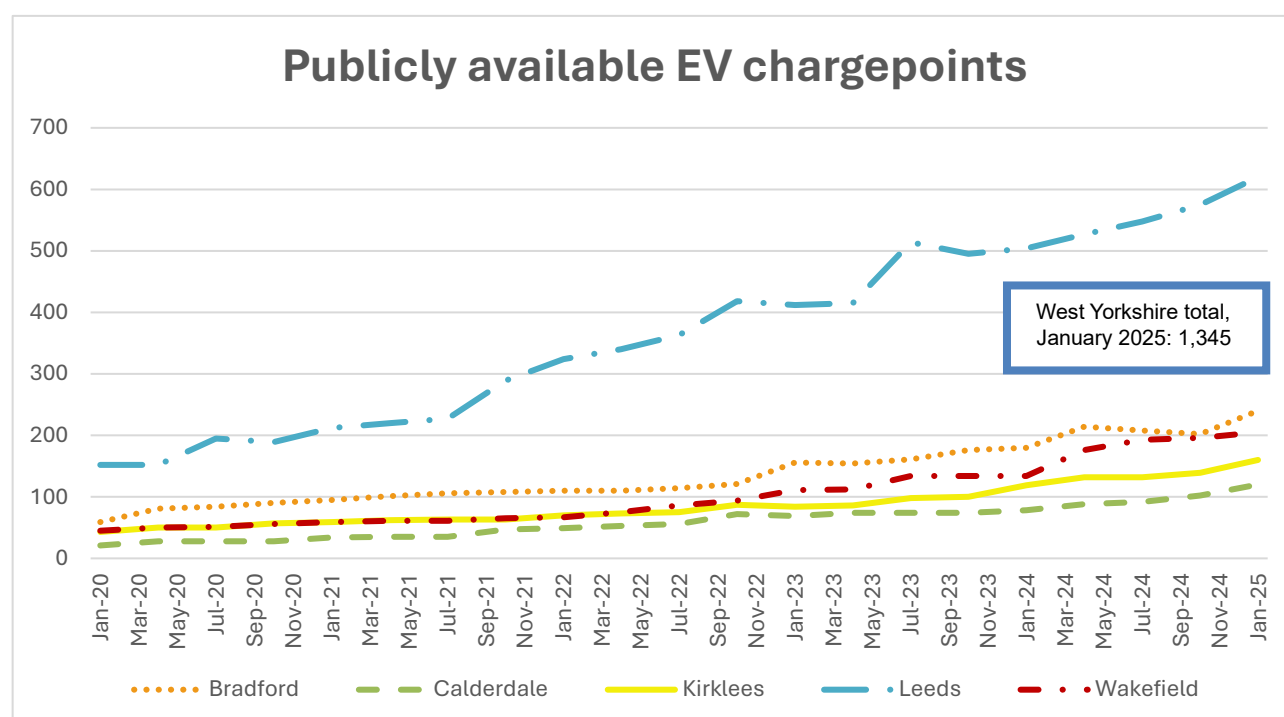


Overview of the current situation: electric vehicle charging in West Yorkshire

Current network

As of January 2025, there were 1,345 publicly accessible chargepoints in West Yorkshire, managed by over 25 different operators. This equates to 56 chargers per 100,000 people. This compares with the English average of 111 chargers per 100,000 people. The number of charging devices in West Yorkshire has grown rapidly from a low base, expanding by 12% in the quarter to April 2024 alone and by 32.5% in the year to January 2025, as shown in Figure 1 below.¹²

Figure 1 Growth in publicly available EV chargepoints in West Yorkshire from January 2020 to January 2025



More than a third of these chargers are rapid at 50 kilowatts (kW) and above, which can charge a car in approximately 30 minutes (to 80%) designed for short stay parking and are typically used for destination charging or located close to main routes to enable long-distance journeys. West Yorkshire matches the England average for rapid charging devices per 100,000 head of population with a ratio of 21.¹³

Figure 2: Share of publicly available electric chargepoints by district, January 2025

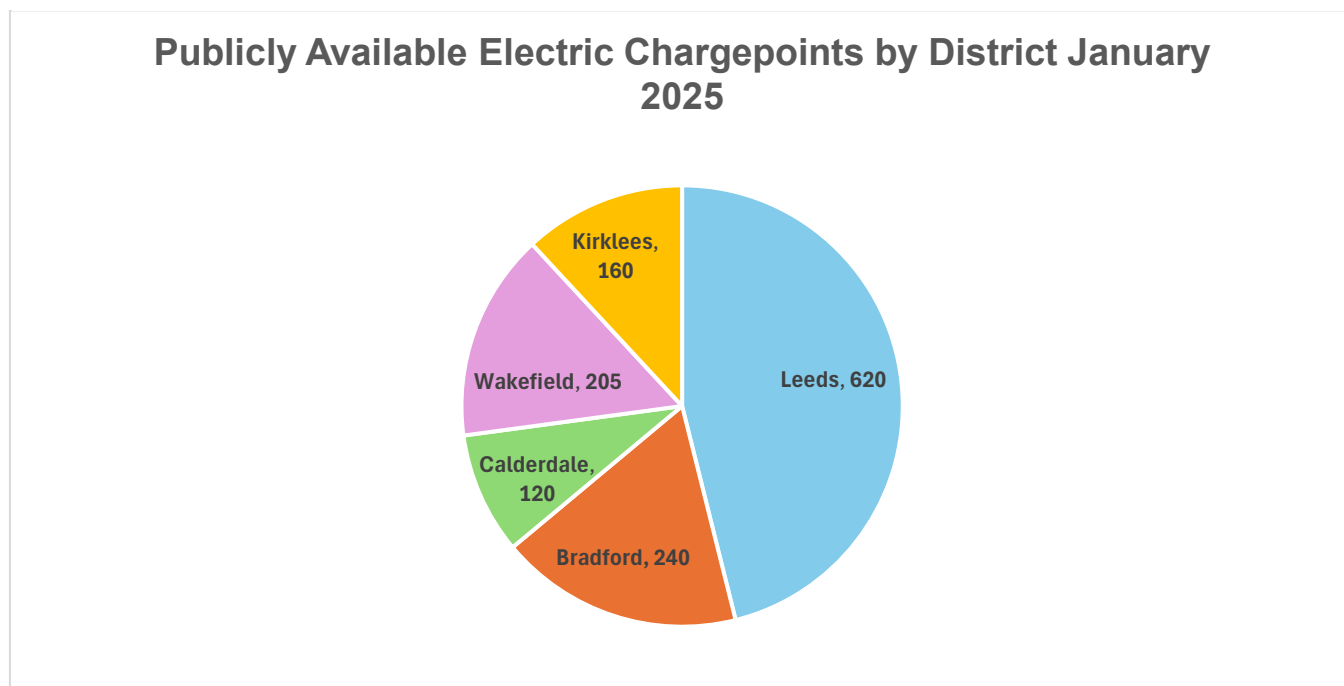
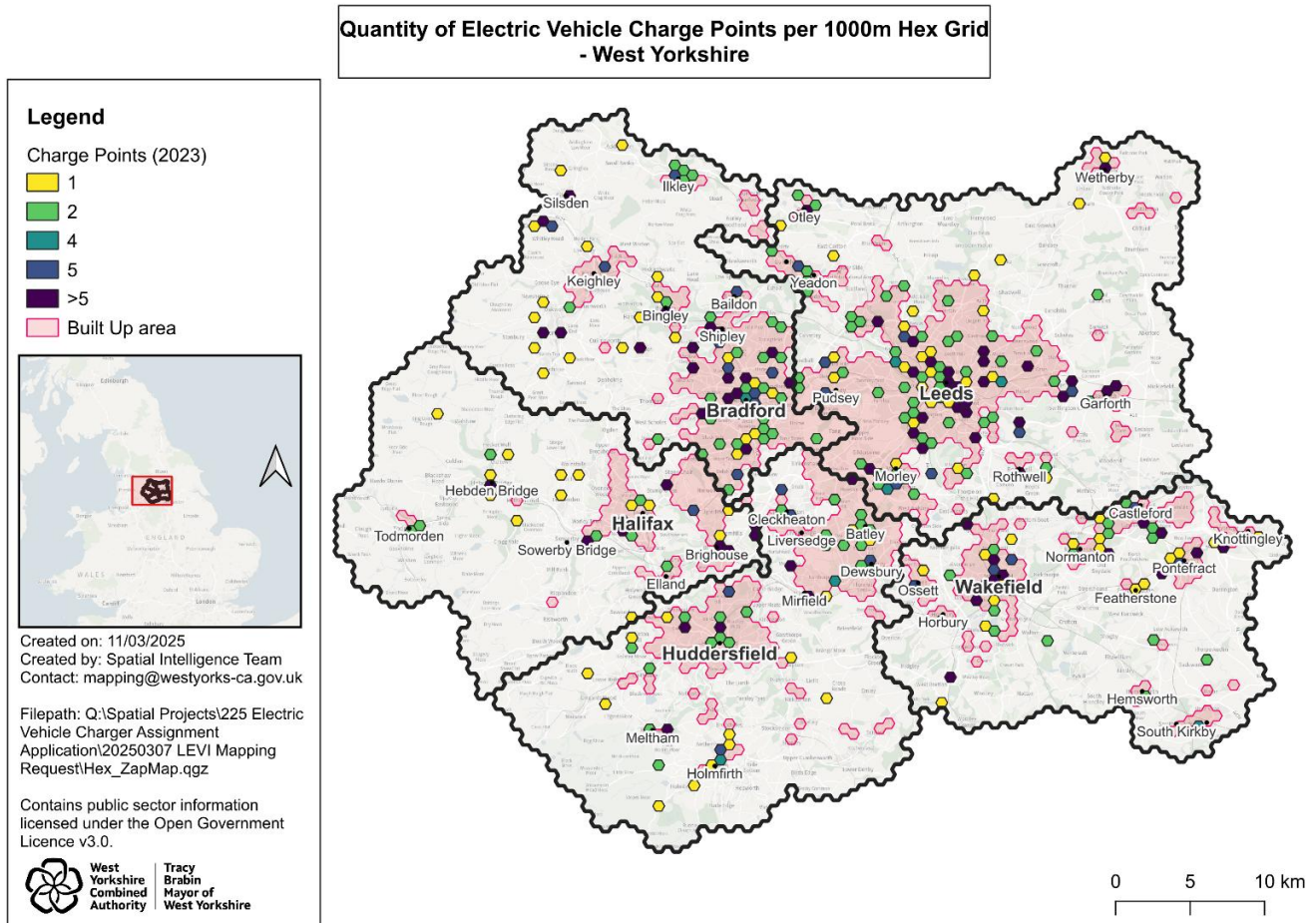


Figure 2 shows that almost half of chargepoints across West Yorkshire are in Leeds, with 620 chargepoints. This is followed by Bradford (240), Wakefield (205), Kirklees (160) and Calderdale (120). Most of these chargers are located in more built up and urban areas as shown in Figure 3 on the next page.

Figure 3 Distribution of chargepoints across West Yorkshire





Public consultation 2024

From 25 July to 12 September 2024, we consulted on EV charging for West Yorkshire. This consultation asked people in the region about our plans for the Local Electric Vehicle Infrastructure (LEVI) programme and our Electric Vehicle Infrastructure Strategy for West Yorkshire. The consultation received 1,685 responses.

Our Electric Vehicle Infrastructure Strategy and Local Electric Vehicle Infrastructure Programme [Consultation Outcome Report](#) sets out the full findings.

The aims of this consultation were:

- To create awareness and inform people of West Yorkshire of the EV Infrastructure Strategy and LEVI programme
- To ask people for their views and consider those views when making decisions on the EV Infrastructure Strategy objectives and the use of LEVI funding
- To understand the effect that the EV Infrastructure Strategy and LEVI programme may have on people in West Yorkshire

- To understand the barriers (actual and perceived) to EV uptake for people in West Yorkshire

Out of respondents who own or use an EV, 84% said they agreed or strongly agreed that their experience as an electric or plug-in hybrid vehicle driver had been positive overall, and 94% said they agreed or strongly agreed that they were happy with their vehicle choice. However, only 19% said they agreed or strongly agreed that there are enough chargepoints to meet their needs, and 12% said they agreed or strongly agreed that public chargepoints are reliable and well maintained. This shows that respondents overall felt there is need for improvement in the network of public chargepoints.

We asked all respondents to prioritise the strategic principles and investment priorities of our Electric Vehicle Infrastructure Strategy and actions that could improve EV charging in the region. Overall, respondents told us they wanted the strategy to prioritise making the network of chargepoints resilient, reliable, safe, well-maintained, easy to use, fair, and accessible.

Within open text questions, the most frequently raised themes were suggesting the need for regulation or price caps due to concerns about the cost of public charging, and the need for a solution (including cross-pavement solutions or incentive and priority schemes) for home charging for people without off-street parking.

Equality Impact Assessment

We have a statutory duty to demonstrate that we have considered the impact our policies and projects have on members of the public and to identify changes we can make to reduce or remove any negative impacts. Our equality impact assessment (EqIA) identified a number of key groups we should particularly consider and engage with for this project. This included the protected characteristic groups of age (older people), sex (women, including pregnancy and maternity), disability, and ethnicity.

Our EqIA identified that older people may be disproportionately impacted by the proposals, due to older people being more likely to have mobility needs, and the risk of public chargepoints being inaccessible for them. Many respondents of all ages told us that having to use different apps, websites, and payment systems for different EV chargepoint operators is confusing, highlighting the importance of accessible and simple to use technology for using public chargepoints.

Our equality analysis identified that women may be disproportionately impacted by the proposals, citing statistics showing that women feel less safe using a public chargepoint. Comments raised issues about the safety of public chargepoint locations, and that public charging would need to be designed with the safety of women in mind. This impact is likely to be more acute for women who don't have off-street parking and would need to rely on public chargepoints to charge their vehicle. These comments show the importance of designing chargepoints and selecting locations with safety in mind.

The EqIA showed us that disabled people may be disproportionately impacted by the proposals, as public chargepoints are often likely to be inaccessible for disabled people. 24% (380) of respondents are disabled, which is 6% higher than census data for the population of West Yorkshire that is disabled (18%). Disabled respondents raised a range of issues related to accessibility for disabled people in their open text comments. Overall, disabled respondents said that they rely (or would rely if they had an EV) on home charging, due to public charging being inaccessible. Comments showed us the need for public chargepoint spaces designed to be accessible for disabled people. It also shows that improving reliability of chargepoints could improve accessibility of switching to an EV and using public chargepoints for disabled people. One respondent raised the need to keep pavements accessible when installing on-street chargepoints, writing “*Ensuring accessible pavements (already so many pavement accessibility issues with bins, and pavement parking)*”.

Our EqIA showed that people from an ethnic minority background may be disproportionately impacted by the proposals. It showed that people from ethnic minority backgrounds are more likely to live in areas without good access to public chargepoints. 6% (85 respondents) were from an ethnic minority background, which is much lower than the population of West Yorkshire (22%). Our EqIA showed that people from an ethnic minority background may be less likely to have off-street parking, and people without off-street parking are more likely to face barriers to switching to an EV due to the higher cost of charging away from home.

The Strategy has been updated to reflect feedback received through the public consultation and engagement with stakeholders more widely. The below themes have been drawn out from the feedback to be addressed, but do not fall within direct remit of the Strategy.

Pricing

The most common theme arising from the consultation was on public chargepoint pricing, price caps and lowering VAT for public charging. Respondents said that they would like to see the Combined Authority regulate pricing of public chargepoints to ensure fair prices, with some suggesting the need for a reduction in the VAT charged at public chargepoints. We know that approximately 43% of households in West Yorkshire do not have a drive or space to charge their vehicle at home and therefore currently rely on using public chargers away from home. It is therefore crucial that we have a reliable, affordable public charging network across west Yorkshire and a network which reflects the behaviours of EV users. EV drivers who can't charge at home pay four times the VAT rate for their electricity from public chargers. VAT on public charging is 20% whereas the VAT rate for charging vehicles domestically is 5%. Likewise, in multi-occupancy dwellings, 20% VAT is charged for what is essentially domestic charging. Home charging prices are based on Ofgem's capped rates that apply to standard variable tariffs or cheaper specialised tariffs for overnight charging from some suppliers which might be adopted by EV drivers, such tariffs which enable EV drivers to charge cheaply at home but also include discounts for charging away from home.

The RAC's Charge Watch¹⁴ analysed average costs to charge an electric car at a public charger in pence per kilowatt hour (ppkWh) for 2024,ⁱ based on a pay-as-you-go non-subscription basis:

- **'Fast' 8-49kW, 66.08p**
- **'Rapid' 50-149kW, 79.19p** equivalent to £41.18 to charge from 10% to 80%
- **'Ultra-rapid' 150kW+, 77.67p** equivalent to £40.39 to charge from 10% to 80%

VAT changes are not within the powers of the Combined Authority and are determined at a national level. The House of Lords Committee report *Electric Vehicle Strategy: Rapid Recharge Needed (2024)*¹⁵ called for the 20% VAT rate applied to public charging to be reduced to 5% in line with domestic electricity. In its response¹⁶ to the report, the Rishi Sunak Government ruled out changes to VAT rules for EV charging, stating that it would "*impose additional pressure on the public finances to which VAT makes a significant contribution*". Such a VAT change was not included in the Autumn Budget 2024.¹⁷

RAC spokesperson Rod Dennis said in November 2024, "*The best prospect of lower prices may come from Ofgem reviewing and, in turn, reducing the additional charges the charging networks have to pay. If these costs come down, drivers could at last expect cheaper public charging costs in the future.*"¹⁸ This has been echoed by other industry leaders, suggesting reforms are needed more widely to bring costs down for charging networks and therefore consumers.

It should also be noted that VAT is not the only component affecting the difference in electricity pricing between domestic and public chargepoints. The main subsidy for private EVs is, of course, the fact that they pay no duty on their fuel, which is electricity. Prices are higher because chargepoint operators also pay higher prices for electricity than domestic consumers, the cost of maintenance and any grid connections required. Looking to the future, as the UK makes the transition away from petrol and diesel vehicles, many argue that road taxation will need to be redesigned to manage incentives alongside revenue of duties and taxes as our vehicle make up shifts.

Some respondents said they would not or would not be able to switch to an EV until public charging prices were more regulated and affordable. In 2022 the trade body the Society of Motor Manufacturers and Traders (SMMT) called for an independent watchdog called Ofcharge¹⁹ to regulate electric car charging prices and improve the availability of chargepoints. Fast forward, and the Public Charging Regulations 2023²⁰ states that all Charge Point Operators (CPOs) must display the total cost of the charging session prior to the entry of any contract (Part 5, 11(1)). And, since November 2024, all new chargers outputting over 8kW of power (or 50kW for existing chargers) must offer a contactless payment solution - usually a card machine (Part 4, 10- Data, (5)). These regulations are obliged to be reviewed by the Secretary of State within five years and publish conclusions of said review.

ⁱ Note, most EV drivers do not solely charge at public rapid or ultra rapid chargers. Many use a mix of chargers. They are however the primary use model for many commercial fleets.

We have heard that the reduction of VAT on public charging would act as an incentive for purchasing EVs. With regard to incentives, it should be noted that any business, charity, or public sector organisation with a Companies House reference number can apply for the Workplace Charging Scheme, or WCS grant if they can declare a need for electric car charging equipment, or an intent to encourage EV use among their staff or fleet.

Looking ahead to our programme of delivery beyond VAT and in terms of prices set, overall, it is the responsibility of the supplier(s) appointed to set and manage the tariff for all EV chargepoints delivered through the LEVI programme specifically. However, ensuring long-term fair customer pricing is paramount and the Combined Authority is committed to ensuring fair pricing for both customers and suppliers is achieved for the EV chargepoint network in West Yorkshire. We are developing a *Customer Pricing Strategy* which has been designed to provide the Supplier with the opportunity to manage the risk surrounding charges in regulation during the contract term. The strategy facilitates agile pricing.

The Customer Pricing Strategy sets out the Combined Authorities' requirements that suppliers appointed to the LEVI programme must follow when setting their tariff; in line with the LEVI Call Off Statement of Requirements which forms part of the supplier contract. It is designed to strike a balance between:

- A reasonable and affordable tariff for customers
- Being attractive to the market, to promote investment in local charging infrastructure
- Being fair to suppliers to ensure adequate return to deliver a well maintained and reliable network

Demand flexibility and smart charging

A topic raised as part of the consultation was how demand flexibility might be used in public EV charging in West Yorkshire. Whilst this falls within the remit of our Local Area Energy Plans currently in development, it is worth acknowledging the opportunities this will likely provide in the future and to address concerns about grid capacity. For example, the nation's peak demand has fallen by 16% since 2002 due to improvements in energy efficiency, we can spread out demand by incentivising smarter charging habits. It is also key to consider that not everyone will switch to EVs overnight - the transition is gradual in nature. There are constant upgrades to the grid and the growth in renewable energy supports this.

In the region, most demand flexibility is currently delivered using aggregators rather than with Northern Powergrid (NPg), although that is an option. Aggregators may be able to open doors to more revenue overall via flex markets. For context, EV charging points are the most common flexibility asset type currently delivering flexibility into Distribution System Operator (DSO) markets. In some DSO markets, EV charging points account for up to 70% of the total assets and 60% of the total capacity delivering flexibility into specific markets. National Energy System Operator's Clean Power 2030 report²¹ forecasts a significant role for EV charging flexibility. EV

charging (smart charging) and Vehicle to grid (V2G) add up to 5.4GW of forecast capacity needed by 2030, which is the largest single source of flex capacity.

NPg recognise that one of the ways they can help enable net zero and meet the increased demand for energy, is through the use of Flexibility Services:

“This means that we’ll look to contract with Flexibility Service Providers (FSPs) who can increase or decrease their energy consumption and/or generation at times requested by us. For example, smart electric vehicle charging that responds to flexibility services, starting and stopping charging at a time that benefits the grid.”

“Targeted Flexibility Services will help us manage peak in demand and generation on our network and get the most out of our existing assets providing resilience and constraint management enabling a smarter and more efficient approach to managing our network and minimise the need for reinforcement.”²²

We will continue our regular engagement with NPg to better understand opportunities available for the region. At present, tariffs and demand flexibility services are in the hands of energy suppliers and not NPg nor the Combined Authority, but that it is something we will monitor.

We have spoken to several Charge Point Operators offering day and night tariffs at their chargepoints across the UK, we are keen to see how reactive charging develops in the future and what opportunities this could provide for charging in West Yorkshire.

It is key to note the role that digitalisation will play in flexibility, as was raised through the consultation feedback, highlighting a need for us to explore the opportunities digitalisation offers without excluding users who do not have access or are unable to use digital only options.

Improving the experience of using a public chargepoint

Improving the experience of using a public chargepoint was a common response to the consultation. Challenges include the obstruction of charging bays and vehicles being blocked in, trouble paying or using the technology, trouble connecting to apps, availability of chargepoint or reliability of them, safety when using chargepoints and chargepoint locations. Though aspects of these challenges can be directly mitigated through site planning and guidance, other challenges require higher standards and enforcement. Designed to improve the experience of consumers are the Public Charge Point Regulations 2023 guidance²³, which are based on four key areas of the consumer experience, to ensure:

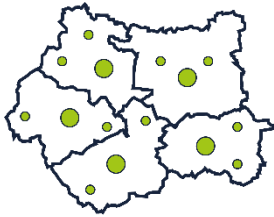
- consumers can easily locate the right public chargepoint to fit their needs
- paying is easy across public chargepoints
- consumers can be confident that public chargepoints will be in good working order
- consumers are able to compare prices across multiple public chargepoint networks

Chargepoints which are accessible to the public must comply with these regulations.

These regulations cover pricing transparency, reliability, contactless payment, helplines and reporting among other areas including enforcement. The document details, that the Office for Product Safety and Standards (OPSS)²⁴ acts on behalf of the Secretary of State to enforce The Public Charge Point Regulations 2023²⁵. The approach to addressing non-compliance is detailed in their enforcement policy with details on civil penalties for breaches.



Key challenges



Comprehensive coverage

The market for EVs is changing. To date, EV chargepoints have been targeted at early adopters, typically higher income groups with disposable incomes to support technology adoption, most often with access to off-street parking. However, the market is maturing and with the government commitment to ending sales of new petrol and diesel vehicles and for all new cars and vans to be fully zero emission at tailpipe by 2035, there is a need to ensure chargepoint provision meets the needs of all residents. This means ensuring chargepoints are accessible, easy to use, and distributed across the region, as well as ensuring that the costs to use the infrastructure available are equitable.

The [UK Electric Vehicle Infrastructure Strategy](#) notes that most drivers will do the majority of their charging overnight at home. There are over 530,000 terrace and flat households in West Yorkshire, many of which do not have access to off-street parking for home charging. The development of the publicly accessible chargepoint network will therefore need to ensure the charging requirements of these residents are met. Analysis of the current charging network shows that 50% of households without access to a drive have a chargepoint within a 10-minute walk. However, the current lack of publicly available chargepoints (56 per 100,000 people) shows that current provision may not meet the growing demand from these communities. Public chargepoints also have to consider the needs of taxis and commercial vehicles such as vans which are taken home over night to charge.

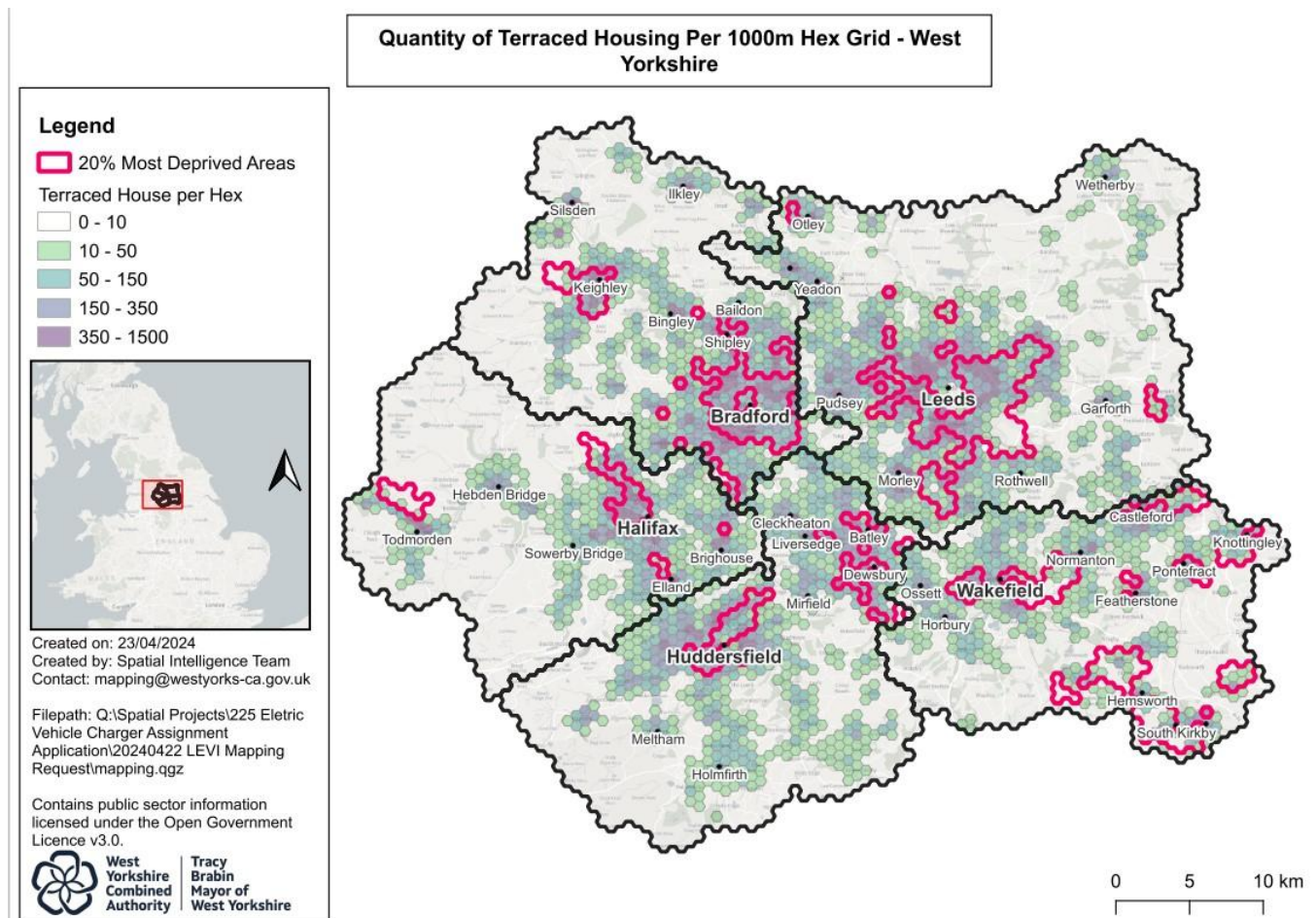
To date, market interest in chargepoint delivery has focused on urban centres, employment sites and destination charging with limited network coverage in many rural areas as well as lower income areas. Additionally, 515 (38%) public chargers across West Yorkshire are 50kW or above which can be expensive to use²⁶ and may not offer an affordable or convenient solution for those without access to off-street parking.

The commercial business cases to provide residential chargepoints ahead of anticipated demand can be challenging, particularly in areas where EV adoption is currently low. In West Yorkshire, many areas without access to off-street parking are those experiencing higher levels of deprivation, as is the case nationally. The map on the next page shows the relationship between areas of higher density of terrace housing and the 20% most deprived areas in the country. It is vital we ensure the network effectively

provides access to charging in these areas as EV use becomes commonplace.

While the transition to EVs brings lots of opportunities for health and environmental improvements, it also brings the risk of increased transport related social exclusion due to the increased cost of purchasing EVs and the potential lack of charging infrastructure. Taxis and vans taken home overnight can often be from small businesses and those who are self-employed and are relied upon for employment opportunities. Chargepoint provision must meet the needs of all residents, in terms of quantity, location, ease of use, accessibility and equity of costs.

Figure 4 Distribution of terraced housing across West Yorkshire



Chargepoint provision is not uniform across West Yorkshire, with limited network coverage in many more rural areas as well as lower income areas. To deliver an equitable transition, it is key to ensure that residents

and businesses in rural and lower income areas are not disadvantaged by a lack of chargepoint infrastructure provision, which may be less attractive for private investment due to lower densities of residents and lower relative demand for chargepoints.

It is particularly important as rural areas have more limited public transport options to avoid rural isolation. Whilst rural residents may often have more space and driveways to install their own home chargepoints, there are also rural residents in historical towns and villages who have limited off-street parking who will need to rely on public charging infrastructure. Additionally, more rural locations can have significant grid capacity constraints.

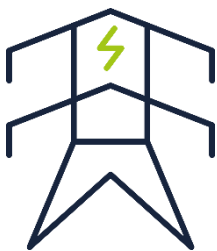


Modal shift

Transition to EVs will be a major contributor to achieving our climate and air quality ambitions. However, this shift alone would not be sufficient to achieve our emission targets. Meeting our targets will also require a considerable move to more sustainable modes of travel such as walking, wheeling, cycling and public transport. Therefore, it is vital that our work supports sustainable travel choices and promotes alternatives to private car use alongside the transition to zero emission vehicles.

There is a risk that without proper understanding and considered planning of the West Yorkshire charging network, the charger types and location of chargers could encourage private car travel and promote avoidable car trips, preventing the region from meeting our climate and environment goals. It is important that the network is designed to reduce the need to travel to access chargers and promotes alternatives to private car use, such as shared transport options (e.g. car clubs), zero emission public transport, walking, wheeling and cycling.

We also need to consider the needs of other modes such as buses, cyclists and pedestrians. Inappropriate chargepoint placement and design can lead to challenging parking practices, which can also have negative environmental impacts. The design and placement of chargepoints should not be at the detriment of other highway users, particularly those who walk wheel or cycle, or use public transport. This is a key principle of our On-Street Guidance, discussed below.



Grid connection

The requirement for a grid connection providing adequate power for the desired charging location should be a key consideration during network design.

The cost of a grid connection can, in some instances, range into the hundreds of thousands of pounds. There are multiple factors that can have an impact on the cost of a new connection that should be taken into consideration during network design. These can include proximity to existing distribution network assets, the route of any connection, any obstacles along the connection route, factors such as road crossings and ground type, any requirement to cross third party land and, in some cases when the demand requirements exceed the existing spare network capacity.

Where network reinforcement is required, this may impact the project schedule and, in certain circumstances, can increase the connection costs. Northern Powergrid publishes a Statement of Methodology and Charges for each of their license areas which detail how costs are determined and who pays for what.

Northern Powergrid are not the only company who can provide a connection to their network and some elements of the work required to make a new connection can be contestable. Factors such as the cost of a connection can also be influenced by who undertakes the civil works and whether an independent connections provider is engaged to undertake the connection works.

Northern Powergrid make network data available via their OpenData Portal to help stakeholders understand the location and capabilities of their existing assets. They also have an AutoDesign Tool which can be used to understand existing network availability and potential costs for new demand connections up to 210kVA. Local and Combined Authorities also have access to one-to-one and one-to-many support with educational and data access needs.



Customer experience and inclusivity

A reliable and modern charging network is essential to give West Yorkshire residents and businesses the confidence to transition away from petrol and diesel vehicles. This includes ensuring that chargers are available, easy to access and use, and well maintained to minimise range

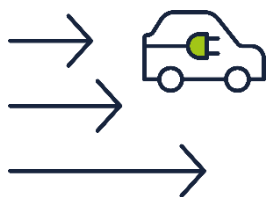
anxiety. Alongside this, accurate and up to date public information on the location and availability of chargers is important to support uptake and awareness.

In the [UK Electric Vehicle Infrastructure Strategy](#), the government recognises the challenges many EV users face when charging away from home where they are often required to have multiple apps or smartcards across different chargepoint operator networks. Additionally, the strategy highlights the limited competition on some parts of the network which has resulted in some drivers being reliant on more expensive, unreliable, and poor-quality facilities.

Public charging is also generally more expensive than private home charging with the National Audit Office reporting that the cost of public charging could be between 59% and 78% higher than charging at home.²⁷ As a result, users who are unable to charge at home currently face higher costs for using public charging infrastructure, particularly for access to faster charging options.

With some chargepoints, insufficient thought has been given to inclusive access, particularly for disabled drivers. Accessibility, in terms of design and placement of chargepoints, is a key consideration to ensure chargepoints are fully inclusive and can be used by drivers with disabilities or additional mobility needs. The British Standards Institution has developed an accessibility standard, [PAS 1899](#), that sets out the minimum specification for an accessible public chargepoint, providing new requirements to ensure this infrastructure is accessible to users.

To prevent safety and security issues and ensure users feel confident using chargepoints, personal safety of drivers should be prioritised when designing EV infrastructure. This also includes security of the chargepoint units themselves. Consideration needs to be given to the choice of sites, the installation of lighting, clear signage, and surveillance to make drivers feel safe when using public chargepoints alone, especially women. It is vital that chargepoints are well-maintained. If a chargepoint is not working there is a risk to safety if drivers are left stranded and unable to charge their vehicle.



Supporting the transition to electric vehicles

If we are to meet our climate and net zero goals, support is needed to accelerate the uptake of EVs themselves. Although public attitudes are changing year on year as EV technology develops and more vehicles arrive on the market, an information gap persists. Public attitudes are directly linked to knowledge and information, with a lack of information

identified as a barrier to switching, particularly regarding running costs and ways and means of charging vehicles.

In response to the above National Travel attitude study (2023), of those who said they were planning on buying a new car, 49% said they were planning on buying an ultra-low emission vehicle as their next vehicle. However, 45% respondents rated their own knowledge of electric cars as 'low to no knowledge'. When asked if "most public chargepoints for electric vehicles are not accessible to drivers with disabilities", the majority (55%) of people neither agree nor disagree, and 4% say they do not know.²⁸

Informing drivers of their options regarding mobility, accessibility, price, distance and tariffs is key in enabling the EV market in West Yorkshire. We want to optimise the experience of EV drivers, and this means they need to know where to find guidance and get answers to questions about all things, from smart charging to charging networks and membership. Engaging West Yorkshire residents on the transition and filling the knowledge gap on EVs will drive the transition and ensure community buy-in for local projects.

Such support is not only needed for private vehicles. Taxis and private hire vehicles (minicabs) can play a key role in a transport network as they can help connect people to work, friends and family, especially in areas or at times of the day where there is limited public transport. They can also support individuals with specific needs, such as a disability, and may help some households to reduce their private vehicle ownership. Working with the taxi and private hire vehicle trades to both provide information on the benefits of converting to EVs, and to ensure that chargepoints meet the needs of drivers, is key to facilitating a quicker switch to EVs and helping achieve our net zero ambitions.

Another area for consideration is fleet and commercial vehicles. Fleet vehicles make up a significant proportion of new EV sales, partly as a result of government incentives over recent years, and it is important to design charging networks to meet the needs of all users. Fleet users are diverse, including car club and rental fleets, people who have a leased vehicle for work and vans based at home or in depots. As such, users have different demands of the charging infrastructure.

The British Vehicle Rental and Leasing Association report that access to fast, affordable, reliable, accessible and secure charging infrastructure is one of the biggest concerns that organisations looking to transition to EVs face.²⁹ Fleets operate a wide range of vehicles in a wide variety of ways and there is no one-size fits all charging solution.³⁰ It is of particular importance that when designing residential and on-route charging that the needs of these users are considered. This also applies to public fleet

operators such as local authorities, health organisations, and emergency services.



Skills and training

Green jobs are greatly in demand. Sectors with the most pressing need for emissions reductions are those which face the most immediate skills shortages, including transport. As of January 2025, there were 63,389 chargepoints installed in England³¹, but with a government target of 300,000 chargepoints installed by 2030,³² a limited skills pool means the transition is under-resourced. Without a well-trained workforce, the expansion of charging networks and their integration into existing power grids will be hindered.

Recent analysis found that the transport sector is estimated to need an additional 175,000 employees nationally by 2035, largely made up of chargepoint installers and operators, vehicle scrappage and recycling experts, battery manufacturers and operators, and electrical engineers.³³ This provides significant challenges but also provides opportunities in Yorkshire and the Humber as levels of young people aged 16 to 24 not in employment, education and training is high.³⁴

There is regional variation in demand for, and access to, green skills. Skills provision will need to reflect local conditions and predicted requirements. For example, in considering future energy demand for EV charging, it is anticipated that Yorkshire and the Humber will have a similar level of demand as the entirety of Scotland by 2030. This will require, among other things, key data science and digital skills, including to support load balancing of the grid and to improve the utilisation of renewable energy and smart meter services.

As marginalised communities face more barriers to green jobs and training, enabling a green workforce will drive inclusive growth. Opportunities for young people to develop green skills through mainstream education are limited and many new entrants have to undertake significant amounts of unpaid voluntary work to gain access to the environmental sector, filtering out many from low socio-economic backgrounds. These barriers to participation need to be removed and clear, accessible pathways identified to fill the green skills gap at the scale and pace required. Local Skill Improvement Plans (LSIPs) are a valuable tool in defining a set of actionable priorities for local employers to upskill people and improve their prospects, however we recognise that due to funding restrictions, LSIPs target the most immediate skills shortage rather than future or emerging ones and as a result, green skills are often overlooked.

Whilst green skills development includes vocational education and training, universities and schools, a major route to drive green skills development will also involve retraining and upskilling West Yorkshire's current workforce. It is key that those with transferable skills in industries such as vehicle manufacturing and electrical engineering can access training on EVs whether through the adaptation of current qualifying courses or through the development of new bespoke EV and emerging technologies courses. Some of our local education providers already do so and have courses to develop the skills of practicing electricians, such as Leeds College of Building who offer an Electric Vehicle Training Course. A 2023 report by the Institute of the Motoring Industry highlighted that currently only 16% of technicians are qualified to work safely on EVs in the UK. In 2022 there were around 14,800 TechSafe qualified technicians to work on EVs, a significant shortfall from the 103,000 needed by 2030 to maintain EVs and keep them on our roads.³⁵

Beyond those working directly on EVs, other major stakeholders such as transport planners and highway engineers will likewise need training in this area. Cross-industry skills development is needed to support the transition, ranging across local communications and energy system roles to installers of renewable technologies so that all decisions are made in light of the technology and opportunities provided by it.



Sustainability and resilience

Supporting wider transport decarbonisation and environmental goals is a key objective for the region and we are keen that a sustainable approach is taken to the lifecycle of chargepoints. This should include:

- Sourcing and processes - ensuring that suppliers use environmentally conscious and ethical approaches in material sourcing and manufacturing.
- Energy - ensuring that electricity is sourced from a renewable supply wherever viable.
- Upgrades – use of modular design and the ability to upgrade will likely extend the usable life of the chargepoint.
- Reuse and recycling - to maximise the environmental benefits, consider the chargepoints end-of-life and ability for reuse or recycling. Waste, parts and end of life assets should be recycled or repurposed wherever possible.
- Environmental and Climate resilience – ensuring that design and placement of chargepoints consider environmental and climate

resilience, particularly in the form of flooding and temperature extremes.

Market analysis indicates a typical life span of around 10 years for the above ground elements of chargepoint units, and market engagement suggests that the recycling of old chargepoints or parts is generally carried out by the majority of suppliers and with some suppliers replacing and recycling parts to extend the life of chargepoints and reduce maintenance periods.³⁶

Purpose of this Strategy

The [UK Electric Vehicle Infrastructure Strategy](#) sets out a requirement for local authorities to develop ambitious local EV charging infrastructure strategies. In response to the [Future of Transport Regulatory Review](#) on zero emission vehicles in October 2023, the Department for Transport said that it would introduce a statutory duty to ensure local transport authorities produced local EV charging strategies and ensure the provision of chargepoints as part of their wider local transport plans.

This West Yorkshire Electric Vehicle Infrastructure Strategy has been developed in collaboration with West Yorkshire local authority partnersⁱⁱ to establish the objectives for public EV infrastructure and action plan for accelerating deployment. The purpose of this document is to set out our ambitions for publicly accessible EV chargepoints, for the West Yorkshire EV charging network and a delivery plan to accelerate the decarbonisation of the road network.

This document provides investment principles and design guidance for chargepoints to ensure provision meets the needs of those who live and work in West Yorkshire and offers equity of access across the region. The strategy specifically focuses on public infrastructure required for cars and vans but looks to encourage electrification of other transport modes such as e-bikes and public transport. This will help to expedite the transition to zero carbon transport and support sustainable travel choices, promoting alternatives to private car use. At this time, charging for e-bikes, cargo-bikes and other micro-mobility solutions are not included in this strategy but may form the basis for future consideration.

This is an evidence-led strategy, developed in consultation with stakeholders and industry, that utilises a range of research and evidence sources, including work undertaken by Transport for the North alongside West Yorkshire led studies focused on demand forecasting, strategic investment priorities and optimum delivery methods.

This strategy is a supplementary strategy to the Mayor's West Yorkshire Local Transport Plan and should be considered alongside the West Yorkshire Climate and Environment Plan. This strategy supports our transport objectives and wider environmental and inclusive growth ambitions by delivering a network of reliable charging infrastructure for a better-connected transport system and accelerating the transition to EVs for a cleaner and healthier West Yorkshire.

It should be noted that this strategy is focused on the provision of charging points, not EVs themselves. This strategy in particular focuses on facilitating the uptake of EVs by tackling the infrastructure limitations which act as a barrier to uptake. The case for facilitating hydrogen fuel cell vehicles and other alternative fuels is explored in upcoming Combined Authority work, including a Hydrogen Use Case and work on alternative fuels, particularly for freight and public transport.

ⁱⁱ Wakefield Council, Leeds City Council, City of Bradford Metropolitan District Council, Kirklees Council and Calderdale Council.

The strategy has been informed by a public consultation carried out in 2024. Feedback from this consultation told us that our focus on comprehensive coverage of chargepoints across the region and approach to improving customer experience when charging is key in the transition. Our overarching objectives were well received and feedback largely focused on the key challenges of accessibility and fair pricing for consumers. Feedback received has contributed to the development of this strategy and accompanying action plan.



Developing the West Yorkshire network

Building a comprehensive, accessible and inclusive charging network ahead of predicted EV uptake is vital to accelerate the transition to EVs if we are to meet our climate change and net zero carbon goals.

The following sections outline the approach we will take to both public funded projects as well as working with private investors to ensure the West Yorkshire chargepoint network delivers the best outcomes for residents and businesses.

Future network requirements

Establishing probable demand is a significant part of planning for EV infrastructure, as a lack of charging infrastructure or poor coverage in specific locations will slow the growth of EV uptake. West Yorkshire is a diverse place, and the chargepoint network needs to reflect local conditions and priorities, as well as the requirements of our communities, business and visitors to ensure the best outcomes are achieved.

While EV uptake is increasing, current low levels of ownership mean there is uncertainty around future user charging behaviour and preferences as adoption becomes widespread. Assessing public chargepoint requirements is complex, and depends on a wide range of considerations, including charging behaviours, technological developments, and future trends in travel choices.

There are currently around 1.2 million cars and vans registered in West Yorkshire.³⁷ However, the frequency of charging of these vehicles may be lower than widely assumed. A mid-market EV commonly provides a range in excess of 200 miles, and this range is likely to increase as battery technology improves over time. As such, the typical household vehicle mileage could be provided by charging just once a week or less (under 7000 miles annually).³⁸

A comprehensive charging network must offer a range of different ways to charge EVs, to meet the needs of residents and businesses. This includes residential charging, on route charging and destination charging (workplace, retail and leisure attractions). However, the UK Electric Vehicle Infrastructure Strategy sets out the need to focus interventions on public chargepoints for two main purposes: to enable long distance journeys, and to support those without off-street parking.

Transport for the North (TfN) has developed an [Electric Vehicle Charging Infrastructure Framework \(2022\)](#) to support partners in the planning and deployment of local EV charging infrastructure. The framework recognises the uncertainties faced with EV infrastructure planning and sets out four future scenarios which look at different environmental, social, spatial, economic and technological drivers of change to assess potential chargepoint requirements across the north.³⁹

This model work undertaken by TfN found that for West Yorkshire, a total of 10,600-11,980 publicly available chargepoints would be required by 2030, specifically aimed at residential charging. In addition to this, between 4,580 and 5,100 destination chargepoints would be required by 2030, taking the total publicly available chargepoints required by 2030 to between 15,180 and 17,080.

It should be noted that much of this provision is expected to be provided by private investment and will not require public investment. As outlined in the national Electric Vehicle Infrastructure Strategy, public funding should be targeted to accelerate delivery where it is needed most, primarily to deliver infrastructure for strategic priorities (e.g. major road network) and support market failures, such as accelerating charging provision in residential areas without access to off-street parking.

Strategic principles

Strategic principles have been developed to guide the future expansion of publicly accessible EV chargepoints in West Yorkshire. These are designed to support investment decision making on the development of a public funded network, as well as set out our ambitions for private investment into the network.

- 1. Enable and accelerate the EV charging network:** Build the charging network ahead of predicted EV uptake to facilitate transition, support the climate agenda and improve air quality, with an emphasis on strategic priorities and 'close to home' charging.
- 2. Reduce inequalities and ensure good coverage of the West Yorkshire network:** Strive for equality of access in EV charging, improving charging network coverage across West Yorkshire, reducing inequalities and transport related social exclusion, ensuring no areas are left behind.
- 3. Ensure the right chargers in the right places:** Ensure EV charging infrastructure meets the needs of local communities and continues to contribute positively to our local areas and streets.
- 4. Ensure chargers are easy to use, fair and accessible to all:** Promoting competition and proper regulation to ensure a healthy market with fair prices, good levels of service and supporting a good customer experience for all.
- 5. Ensure the West Yorkshire network is resilient, reliable, safe and well maintained:** Work to ensure chargepoints are well maintained, reliable, safe and secure to maximise the usability of the network and increase user confidence in EV charging.
- 6. Support wider transport decarbonisation goals:** Help to reduce the environmental impact of travel and transport by encouraging modal shift and enable alternatives to private car use, and ensuring the use of renewable energy is prioritised to supply chargepoints where viable.



West Yorkshire investment priorities

If we are to accelerate EV uptake, we must ensure that infrastructure is provided ahead of demand. If left purely to the market this is unlikely to occur, as the private sector will not invest significantly ahead of demand as the commercial case is less certain and the investment return periods likely to be longer.

The following categories will be prioritised for early public investment in the charging network. However, this list will be reviewed and updated as the infrastructure market matures and charging behaviour patterns further develop. Additionally, consideration will be given to strategic destination and on-route charging priorities as they arise, to ensure we have a comprehensive network.

‘Close to home’ public charging

Although EV charging behaviour patterns have yet to be fully established, it is widely anticipated that most people will charge at home, overnight, as the most convenient and cheapest method. In West Yorkshire, there are over 530,000 terrace and flat households, many of which do not have access to off-street parking for home charging. As most charging is done at home, this presents a barrier to adoption for a significant proportion of West Yorkshire residents. Public chargepoints also have to consider the needs of taxis and commercial vehicles such as vans which are taken home over night to charge.

West Yorkshire is a diverse place, and a one size fits all approach is not appropriate for network design. Residential chargepoint schemes need to reflect local conditions and priorities, as well as the requirements of local residents and businesses to ensure the best outcomes are achieved. As such, ‘Close to Home’ charging will be pursued as the preferred model for residents without access to off-street parking. This includes both on-street and off-street charging solutions and is technologically agnostic, allowing residential chargepoint schemes to be designed to meet local conditions:

- **On-street residential charging:** In some settings, on-street charging will be the appropriate model. This is principally dependant on pavement and road widths, demand from other transport modes, parking demand, grid capacity and connection availability, topography, and other physical constraints. In such instances, low impact technology solutions will be prioritised for on street deployment that minimise any negative effects on pedestrian, cyclists and other road users, and contribute positively to the streetscape. Charging infrastructure must not become a barrier to active travel or public transport users. On-street locations should be in appropriate locations that facilitate and support high utilisation, with shared use of charging facilities in public bays.

- **Off-street charging:** In some residential areas, it is physically challenging or potentially financially unviable to install on-street charging due to the scale required to meet anticipated demand from private EVs. Due to narrow roads and pavements, on-street charging can present problems for accessibility of the footpath or for other road users in some areas. It can also further aggravate existing parking demand pressures by reducing parking availability. Where off-street charging is more appropriate, charging hubs will be prioritised at convenient locations close to residential areas, such as car parks, laybys, community facilities, and at dedicated charging sites. Hubs may range in scale from two chargers to multiple chargepoints, will consider the inclusion of e-car club provision and charging for other modes (e.g. e-bikes), and will be targeted at residential areas without access to off-street parking within a 5–10-minute walking radius.

Another key consideration is typical mileage. Whilst those living in rural areas are more likely to have a home charger, they also drive about 40% more miles each year than those living in urban areas, according to the National Travel Survey.⁴⁰ For high-mileage drivers in rural areas, hubs of ultra-rapid chargepoints on major routes can serve the need for re-fills on long journeys or quick top-ups closer to home. Likewise, seasonal traffic is a further consideration. Regions with high through-drivers and seasonal visitors require strategically placed ultra-rapid charging hubs, both on major routes and at or near their desired destinations.

Pavement channels (also known as gullies) are a way for residents to be able to use a chargepoint connected to their domestic power supply without having off-street parking. They usually require a shallow trench to be dug into the pavement fitted with a solution that allows the charging cable to run through the channel without presenting a public health and safety risk. This technology is relatively new and is currently being trialled by a number of local authorities nationally. In certain circumstances, pavement channel charging technology can offer benefits, including lower costs of charging using domestic energy tariffs (subject to a lower VAT rate than at public chargepoints), the security of charging outside of one's own home, and using existing energy supply removes the need for electrical grid upgrade.

However, there are a range of challenges associated with pavement channel charging, which we have developed guidance to mitigate.

On-street charging guidance

As part of the EV Infrastructure Strategy Action Planⁱⁱⁱ, the Combined Authority and local authority partners have developed the West Yorkshire On-street Electric Vehicle Charging

ⁱⁱⁱ See pages 33-34.

Standards Guidance. This will be used by local authorities and installers to achieve the best outcomes for schemes, reflecting national guidance and local best practice. The On-Street Guidance is one of a suite of documents designed to support The Combined Authority and its local authority partners in the development and delivery of a comprehensive, accessible, equitable and fit for purpose West Yorkshire Electric Vehicle infrastructure network. The guidance provides tools and recommendations to help local authorities in West Yorkshire implement on-street EV charging solutions. It is intended to help local authorities feel more equipped to make decisions, including reasons for declining a site. It focuses specifically on on-street charging solutions and has been designed to help drive consistent standards across West Yorkshire. The standards and principles outlined in the document are recommended best practice and have been designed to prioritise vulnerable road users. A major aspect of consultation feedback we received was the importance of accessibility for EV users when using public chargepoints, and that is being reflected in these standards.

The guidance differentiates between standard on-street furniture installation (chargepoint technologies) and cross-pavement solutions. Local authorities, as the Highway Authority, own and manage the public highway and have the ultimate ability to approve or reject works. As such, highways authorities will be responsible for determining the suitability of such solutions in specific instances, and in the case of West Yorkshire this is the responsibility of the five local authorities.

Government guidance⁴¹ on pavement channel charging was published in December 2024 which will also support this decision making. It is expected that pavement channel charging may only be acceptable in the following instances:

- In areas of adequate on-street parking, with parking generally available outside houses in that area
- The road is sufficiently wide to allow easy passage of traffic
- Pavement widths are adequate to allow use of technology
- The use of such technology would not cause conflict to other street users (e.g. bus routes and stops, cycle ways, pedestrians).

The Combined Authorities Guidance includes:

- Site selection principles (essential and desirable)
- Recommended commercial delivery models (ownership/maintenance)
- PAS 1899 bay standards application
- User hierarchy for conflict
- Additional specifications by technology type
- Enforcement

- Permissions
- Buildouts
- Lamp post chargers
- Pop-up/subterranean chargers/retractable chargers
- Pedestal/free standing chargers
- Passive provision
- Parking control measures
- Appendix of case study examples of technology types

On-route public charging

On-route charging is situated to allow charging to continue a journey, most often located on or close to main routes and motorways. Such locations could include motorway service areas, service stations, electric forecourts and transport hubs but also includes ultra-rapid charging at hotels and attractions. Such charging is typically rapid or ultra rapid to allow for quicker charging times and can be in the form of hubs to allow multiple users to charge at once.

Some of the locations fall into the remit of National Highways who manage the motorway network.

Furthermore, many of these sites would be of significant commercial interest to private investors and as such may require no public sector support. However, where a need to support on-route public charging is identified which isn't being met by the market, further work could be done by the Combined Authority and its local authority partners to identify sites, and in some cases support development of sites, in collaboration with private investment.

Such opportunities would need to consider the range of users who may rely on on-route public charging, such as taxis, commercial fleet such as vans, and public fleet operators such as local authorities, health organisations, and emergency services.

Shared transport

Where we want to go and how we want to travel to get there is changing. Advances in technology, changes to how we work, and a shift in the way we access services and buy goods have all influenced how and when we travel. Shared transport looks at how new ways of travelling can help to create a better, more inclusive, and greener transport system that meets our changing travel and transport needs. It includes travel options such as car clubs, shared

bike schemes, new public transport services, like on-demand buses, and mobility hubs that integrate access to a range of transport modes and services.

As part of the need to reduce private car travel, we will look to promote use of shared transport through public investment in EV charging infrastructure and promote the electrification of shared transport options where appropriate. This may include supporting the installation of chargepoints at existing or new car club sites, including chargepoints at mobility hub locations, and looking at the needs of other modes alongside cars and vans (e.g. electric bike schemes). This will also include consideration of charging needs of the taxi and private hire vehicle sectors in West Yorkshire.

Employment and skills

In June 2019, The Combined Authority declared a climate emergency. In response, the Employment and Skills Framework set its strategic imperative, to support skilled people, good jobs, and strong businesses.⁴²

Currently, West Yorkshire has around 98,275 jobs in carbon intensive sectors, however there were an estimated 73,400 green jobs in West Yorkshire in 2021. We know the economic benefit of creating green jobs. Improving employment and skills outcomes by even 15% across different local authorities could deliver an array of economic, fiscal and social benefits. Skills improvements resulting in improved productivity could boost the local economy of a combined authority, such as West Yorkshire, by £80 million.⁴³

In West Yorkshire and nationwide, there is a tight labour market and skills shortages, so pathways which enable people to gain skills and enter the green workforce are crucial to drive the transition and support our vision of a well-connected West Yorkshire. Creating job opportunities in West Yorkshire through EV and chargepoint training now and in the future will drive us towards the government's target of 300,000 chargepoints in the UK by 2030. We will work with local education providers to ensure that there are clear career pathways to green jobs, to roles including electrical engineers and chargepoint installers. This will involve increasing awareness of job roles and career opportunities as well as confirming the right courses and modules within them are offered for these roles.

Driving this ambition, the green jobs taskforce have created a set of recommendations which look to attract and inspire individuals, simultaneously enabling businesses to access support to decarbonise and upskill or reskill individuals. It is key that we understand the region's skills requirements for the future based on our specific and developing transport system. We will support this further by ensuring through our contracts with suppliers that we create local green jobs where possible.

To address these challenges the Combined Authority have introduced skills bootcamps as flexible, short-term training courses designed to equip individuals with in-demand skills to support career progression and workforce development. One skills bootcamp focused on EV

and photovoltaic (PV) technology for 30 learners and another level 3 hybrid and electric vehicle course was delivered, training 28 participants and achieving a 68% progression rate. There are plans for further skills bootcamps, including one focused on electric heavy vehicle maintenance and repair for 50 learners. Additionally, there is potential to continue the EV and PV training, though this is subject to funding confirmation from the Department for Education.

Colleges across West Yorkshire offer a range of EV training programmes to support workforce development in the sector. Leeds College of Building provides the Electric Vehicle 2921-34 Training Course (Level 3 Award), focusing on skills relevant to the EV charging sub-sector.⁴⁴ Bradford College offers a Level 3 course in Component Removal and Replacement for Electric and Hybrid Vehicles, equipping learners with the skills to safely work on high-voltage systems.⁴⁵ Kirklees College has established a Hybrid Electrical Vehicle Centre at its Engineering Centre, delivering hands-on training in hybrid and EV technology.⁴⁶ Leeds City College, through its School of Sustainable Technologies and Motor Vehicles, provides training in vehicle maintenance, including specialised EV workshops.⁴⁷ These programmes play a crucial role in upskilling individuals and addressing the growing demand for EV expertise across the region.

Despite ongoing training efforts, discussions with stakeholders and suppliers have identified several region-specific areas where demand for skilled workers outstrips available resources:

- **Chargepoint installations:** There is a high demand for chargepoint installers, but a shortage of skilled electricians and civil contractors to meet this need.
- **EV infrastructure maintenance:** Skilled workers are required to maintain EV infrastructure, yet there is currently a gap in training and workforce availability.
- **EV mechanics:** A knowledge and skills gap exists in the maintenance and repair of EVs, requiring further training opportunities.
- **EV communications and marketing:** A lack of expertise in promoting and educating the public about EVs has led to misinformation, highlighting the need for skilled professionals in this area.
- **Local authorities and highways:** Many local authorities lack the necessary resources and knowledge to support EV infrastructure development. Local authority EV officers have emphasised the importance of additional highways training to address this gap.

Addressing these skills gaps requires significant investment in workforce development, the expansion of skills bootcamps and training programmes, and more collaboration between the Combined Authority, educational institutions and industry stakeholders.

In its response to the Lords' Environment and Climate Change Committee report, Electric vehicles strategy: *Rapid Recharge Needed*,⁴⁸ the government agreed with the recommendation that it should "consult local authorities about what guidance and training they need as part of the LEVI scheme and seek to adjust the offer accordingly."⁴⁹



Design principles and standards

It is vital to ensure the design and operation of chargepoints are tailored to meet the strategic principles set out in this strategy to ensure the best outcomes for all customers and meet our wider decarbonisation and inclusive growth goals.

Charging use cases and typologies:

Ensuring the right chargers are in the right places will help to ensure the charging network is efficient and fit for purpose. It is also critical to develop charging patterns that support reductions in private vehicle trips and help to further our transport decarbonisation goals.

Chargepoints come in a variety of different speeds which are designed to meet different charging requirements and customer needs:

- **Standard** (<8kW) chargers take up 5 - 12 hours^{iv} to charge a car and are suitable primarily for overnight charging. They are usually cheaper to buy and install, less likely to require significant electricity grid upgrades and are often the cheapest to use for customers. Currently, some EVs cannot be charged above 7kW, but many now have the required hardware to charge at 22kW and the proportion is likely to increase as the technology develops and prices reduce. Each EV has an onboard charger which is built into the vehicle. The speed that an EV will charge at depends on the capacity of its onboard charger.
- **Standard Plus** (8 - 49kW) chargers take 2 - 4 hours to charge a car.
- **Rapid** (around 50 - 149kW) chargers can charge a car in 30 minutes to 1 hour (to 80%) and as such are designed for short stay parking. Rapid chargepoints are more expensive to buy and install and are more expensive to use for customers.
- **Ultra-Rapid** (over 150kW+) chargers can charge a car in as little as 20 minutes (to 80%) and as such are often used for on-route charging (e.g. motorway service stations). However, currently only higher end EVs can charge at these speeds, as such these chargers are the most expensive to use for customers.

A set of chargepoint typologies have been developed for the region that consider charging behaviours, dwell times and charger types as well as cost considerations.

Table 1 West Yorkshire electric vehicle chargepoint typologies

Typology	Use case	Charging Speed	Anticipated Delivery Mechanism
Off-Street Home Charging	Private home or apartment parking at off-street sites (e.g. private drives, dedicated residential car parks)	Slow/standard	Development planning process Homeowners Government grants
'Close to Home' Charging	On street parking bays in residential areas Off-street charging in car parks, laybys, community facilities, and dedicated sites in residential areas	Slow/standard - Fast	Public and private investment

^{iv} Assumed average EV battery 43 kWh.

Typology	Use case	Charging Speed	Anticipated Delivery Mechanism
Workplace Charging	Dedicated workplace parking	Fast - Rapid	Development planning process Employers Government grants
Destination Charging	City, town and local centres and car parks Transport hubs and park and ride sites. Retail parks and supermarkets Leisure and visitor attractions	Fast - Rapid	Largely private investment with public investment to support strategic priorities
On Route Charging	Service stations and existing petrol stations. Lay-bys near areas of business activity	Fast – Ultrarapid	Largely private investment with public investment to support strategic priorities

Chargepoint specification and standards

The Combined Authority in collaboration with local authority partners have developed a West Yorkshire Electric Vehicle Infrastructure Framework to support with procurement of EV infrastructure for public use. The purpose of this framework is to accelerate delivery and develop common, standardised contractual arrangements and scheme requirements for EV chargers that build on the learning of schemes and best practice.

The framework includes a preferred outline technical specification for chargepoints in West Yorkshire. This specification is designed to inform and guide decision making to ensure optimum outcomes for customers and promote consistency across the network as it develops allowing schemes to also reflect local conditions and the requirements of local residents and businesses.

The standards within the specification require all chargepoints to be:

- Inclusive, accessible to all, and easy to use.
- Offer customer confidence, a good customer experience and fair pricing.

- Resilient, reliable, and well maintained.
- Safe and secure
- Sustainable and environmentally conscious

This preferred specification will be reviewed regularly to ensure it meets the latest standards and guidance and reflects the latest advances in technology.

Development planning

Through the planning process we will look to facilitate and coordinate the development of an EV chargepoint network that supports uptake at new and redeveloped sites and ensure chargepoints are integrated and normalised within new developments from the design stage.

Local authorities within West Yorkshire already set chargepoint requirements as standard in line with local and national policies. West Yorkshire planning guidance is being developed for the region through the upcoming West Yorkshire Air Quality work.

It is important to ensure that new developments are designed with the infrastructure needed to expand chargepoint provision in future as demand increases. We will encourage the provision of both active chargepoints and passive provision in new developments:

- **Active chargepoints:** spaces that are fully wired and ready to use from the outset of the development.
- **Passive provision:** providing the underlying infrastructure (power supply capacity and the ducting installed within car parking facilities) to enable simple expansion of chargepoints at a future date.

New developments should be required to provide a minimum number of active chargepoints as set out in the relevant local planning authority planning policies and offer enough passive provision to enable efficient expansion as demand increases (recommended 20-40% passive provision in bays dependant on the location, determined by planning officers).

Consideration should also be given to the inclusion of charging for other modes (e.g. e-bikes) and integrating Car club EV bays alongside chargepoints. This is especially important for strategic sites e.g. stations, transport hubs and large residential developments.

The speed of planning, and the impact that this has on delivery, was raised by survey respondents in consultation feedback. The Government recently brought forward changes to “*streamline the application process to install EV chargepoints*” due to increasing demand, through the Planning and Infrastructure Act 2025. As of April 2026, this reform grants chargepoint operators the legal right to access the street works permit regime in England; under which they will no longer need to obtain section 50 licences under the New Roads and

Street Works Act 1991. Proactive action is needed from chargepoint operators to acquire a Street Works Act code from Geoplace and registration for Street Manager.



Site prioritisation

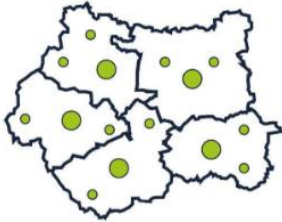
Ensuring the right chargers are in the right places is vital to both maximise deployment of chargers to support the uptake of EVs and to ensure fair coverage so that no areas are left behind. While the transition to EVs brings lots of opportunities for health and environmental improvements, particularly in terms of air quality, it also brings the risk of increased transport related social exclusion for people in already deprived areas due to the increased cost of purchasing EVs and the potential lack of charging infrastructure.

Delivery of infrastructure should include areas with higher concentrations of EV adoption to ensure demand is catered for. Investment by the private sector naturally focuses on these areas as those most likely to offer greater financial returns. However, research shows these areas are generally more urban and affluent. Care must be taken that no areas are left behind. Public sector investment should be targeted at ensuring comprehensive coverage across West Yorkshire to reduce inequalities.

Alongside this, there are a series of practical considerations in site selection such as accessibility, modal integration, proximity to and ease of connection to the electricity grid, and deliverability. This section will lay out our approach to site selection and describe these criteria.

Site selection process

We are keen to maximise rollout of EV charging infrastructure, however without public intervention to guide the development of the network we may end up with a fractured system that overprovides in some areas and leaves gaps in others. Sites must be selected in a way that maximises their utility and the spread of the network, while minimising the negative impacts. The following three objectives will guide site selection in West Yorkshire:



- **Increasing network coverage and reducing inequalities:** private sector investment focuses on pre-existing demand, often higher income, urban or suburban areas as these have the best return on investment. We need to ensure full coverage for the charging network so rural and deprived areas are not left behind.



- **Deliverability:** the choice of location has an impact on costs and potential usage of chargers. To expedite delivery and maximise investment, we will prioritise sites that score better on deliverability. This includes consideration of land ownership, legal requirements and permissions, accessibility and feasibility, grid capacity and ease of connecting to the grid.



- **Supporting transport decarbonisation:** we need to promote the shift away from private vehicle use while promoting EVs. Placement of chargers should not be at the detriment of other more sustainable modes and should not promote inappropriate or harmful parking practices. This includes zero tolerance of trailing cables or street furniture that reduces accessibility for active travel. Where appropriate, chargers should be co-located with other modes (e.g. transport hubs, mobility hubs and car club bays) to support modal integration and alternatives to private car use.

Utilising tools such as Transport for the North's EV Charging Infrastructure Framework alongside other sources of spatial data, sites will be selected using these prioritisation objectives, informed by our wider strategic objectives, by local knowledge and predicted demand as well as wider social, environmental and health indicators. We will also work with stakeholders such as local residents, businesses, interest groups and Northern Powergrid as part of the site selection process.

Implementation plan

The UK Electric Vehicle Infrastructure Strategy establishes a model that maximises opportunity for chargepoints to be delivered by the market as a means to accelerate delivery, foster competition and encourage chargepoint suppliers to provide innovative solutions that meet drivers' needs, at the lowest possible cost.

We are keen to work with investors and suppliers in West Yorkshire to expand and enhance the West Yorkshire network and ensure that the network grows in line with the objectives and principles set out in this strategy. Maximising private investment in the West Yorkshire network will be key to ensuring we have adequate provision to meet predicted demand. However, this must not be at the expense of quality, and we will look to promote the principles set out in this strategy to all those investing in the West Yorkshire publicly accessible network.



Delivery models

Although much of the required EV chargepoint network is expected to be provided by private investment, there is a need for publicly funded investment in the network to level up coverage across West Yorkshire ahead of future demand, reducing inequalities and risk of transport related social exclusion. The principal focus of this public funding will be on strategic priorities related to key transport hubs, modal integration, and the major road network, alongside ensuring 'close to home' provision for residents without access to off-street parking.

The Combined Authority in collaboration with local authority partners have developed a West Yorkshire Electric Vehicle Infrastructure Framework to support with procurement of EV infrastructure for public use. The purpose of this framework is to accelerate delivery and develop common, standardised contractual arrangements and scheme requirements for EV chargers that build on the learning of schemes and best practice. This framework has been designed to meet the specific needs of West Yorkshire and support both the use of private and public funding to deliver chargepoints. The framework will allow partners to work more closely with suppliers, utilising their skills in site identification and scheme design, while ensuring high standards are met throughout. There is no requirement for West Yorkshire local authority partners to use the framework, however it will be employed for regionally led projects.

The objectives of this framework are to:

- Enable and accelerate EV chargepoint provision in West Yorkshire and support the development of a comprehensive charging network.
- Ensure good distribution of chargepoints across West Yorkshire with the right chargers in the right places.
- Ensure chargepoints are easy to use, fair and accessible to all.
- Support modal shift away from fossil fuel private vehicles.

Commercial models

Where public land is sought for private investment, a land lease, concession arrangement or local authority owned approach can be used. There are a range of benefits and challenges with this, as outlined below.

In some instances, a land lease commercial arrangement may be preferred, where the local authority leases land that it owns to a service provider. All capital and operational costs are covered by the service provider who also retains the risk and responsibility associated with installation, maintenance, and asset utilisation and provides a payment to the local authority.

There may also be opportunities for a local authority owned model for specific projects, where a local authority pays for all capital costs, and pays the operator to manage the chargepoints on their behalf.

However, the preferred approach is a concession arrangement, which allows a flexible approach that shares aspects of capital cost, operational costs, control and risk between the local authorities and service providers. Under this model, public funding may provide some capital investment, for example to support less commercially viable sites (e.g. lower income or rural areas ahead of demand, areas where grid connections or site works may be more challenging). The local authority retains some control over the quality of service and location of the chargepoint by having an active role in contract management and performance monitoring of the service provider. The risk and responsibility associated with installation, maintenance, operations, and asset utilisation is transferred to the service provider who finances the capital and replacement costs of the charging infrastructure. A small portion of the revenue generated as a payment for the concession and to fund contract management will usually be given to the local authority. However, this could be replaced with an annual charge to cover contract management or a payment per parking event or a combination of these. This model allows investment to be maximised but also ensures quality of provision for West Yorkshire residents, with the greater value for money potential.

Responsibilities

Combined Authority responsibilities, will include but are not limited to:

- The administration and governance of the customer pricing strategy.
- Ensuring that the customer pricing strategy is reviewed in line with the governance arrangements.
- To ensure that the principles set out in this Strategy are adhered to.
- To ensure that the up-to-date customer pricing strategy has been circulated to all relevant stakeholders.
- All relevant teams, departments and individuals are aware of the requirements of the customer pricing strategy.
- The customer pricing strategy conforms to applicable legislation.

Local Authority Partner responsibilities, will include but are not limited to:

- To uphold the customer pricing strategy.
- Any decisions relating to the waiving of their revenue share, to enable the saving to be passed directly to the customer.
 - Where this occurs, the relevant local authority will be responsible for conducting all checks and monitoring of the supplier to ensure that the saving has been passed on.
 - Setting and administration arrangements of additional fees.

- All relevant teams, departments and individuals within their organisation are aware of the requirements of the customer pricing strategy.

Supplier responsibilities will include, but are not limited to:

- Payment and refund processing.
- Setting the tariff and other additional fees, in line with the requirements of the customer pricing strategy.
- The clear and up to date communication of the tariff, fees and related pricing information:
 - to customers.
 - on signage and the supplier's online platforms
 - liaising with 3rd party platforms where information is displayed
 - reporting of information to the Combined Authority and local authority partners, in line with the reporting and data requirements set out in the LEVI Statement of Requirements.
- Promotion of offers and smart tariffs as applicable.
- The provision of payment system(s), including;
 - Ensuring a suitable payment system is available for customer use, at all times:
 - Where the payment system becomes unavailable the supplier is responsible for rectification and repair – repair tolerances are as per the LEVI Statement of Requirement key performance indicators and SLs.
 - The supplier is responsible for ensuring adequate redundancies are in place and alternative payment options are provided to ensure there is no single point of failure.
 - All aspects of maintenance and repair of the payment system.
 - Ensuring the payment system complies with all relevant laws and regulations (including Public Chargepoint Regulations 2023), including conducting due diligence of any suppliers.
- That robust data protection mechanisms are in place.
- Ensuring that the payment system is accessible to all user group or alternative accessible provision is in place.
- The procurement or in house development of the payment system.
- Future proofing and upgrading the payment system.
- Customer service provision relating to the payment system.
- All relevant teams, departments and individuals within their organisation, relevant suppliers and sub-contractors are aware of the requirements of the customer pricing strategy.

Working with stakeholders

Effective delivery of this strategy requires working with a range of stakeholders throughout. This is to ensure that the network is designed to meet the needs of all users and that we continue to adopt intelligent site selection methods to select the best possible sites for chargepoints. Additionally, we need to ensure that there is a strong understanding of the EV charging network to support the transition to EVs.

Distribution network operator engagement

Costs of new distribution network operator (DNO) connections can range up to hundreds of thousands of pounds depending upon location, charger quantities and power requirements. Therefore, careful network planning with consideration of grid capacity and connection point ensures that the intended charging use-case is clear at each location and that the most appropriate recharging equipment can be specified.

A key action is to continue strengthening working relationships with Northern Powergrid, the DNO in West Yorkshire, with the aim of getting a better understanding of grid capacity and supporting coordinated planning activity. Early engagement with Northern Powergrid will be particularly important in locations where the grid connection is likely to be more challenging.

Resident and business engagement

Understanding the needs of residents and businesses is a vital aspect of developing an effective chargepoint network. We will work with stakeholders including residents and businesses to ensure schemes are developed to meet the needs of communities. This also includes effective working with local and national disability groups. Additionally, we will encourage operators to engage with these groups as part of location selection and chargepoint design as schemes progress.

We will explore opportunities for residents and businesses to put forward recommendations for new chargepoints in the future. This will also include consideration of the needs for taxis and commercial vehicles such as vans.

It is important to raise awareness of the availability of charging infrastructure in the region, to address issues like range anxiety and increase adoption of EVs. We will work with suppliers to develop public information and awareness campaigns to promote use of the network and provide information on the location of chargepoints as well as how to access them.

Private operator and industry engagement

There is a need to work with private operators and industry to promote the principles contained within this strategy, as well as support opportunities to maximise private investment in the region. Through this relationship building, we will look to also gain a better understanding of investment priorities and encourage installation of chargepoints at priority locations. Such engagement is important to keep abreast of advances in technology and emerging charging behaviour patterns to support future decision making and influence future updates to this strategy.

We will work closely with chargepoint operators to make sure that a reliable, robust, safe, and well maintained EV charging network is delivered for West Yorkshire. We will procure contracts with chargepoint operators which will have agreements to hold providers to account for the level of service and reliability that they deliver. Through the West Yorkshire Electric Vehicle Infrastructure Framework we will work with a select number of chargepoint operators, rather than a single provider. We will make sure that the public has choice and is not reliant on one provider.

Public body engagement

Future legislation, such as the 2030 phase out date for new petrol and diesel cars and vans, requires long-term future planning for public bodies with fleets, to de-risk their transition. The Combined Authority will lead a forum on special case and public service provision of EV chargepoints to understand the needs and ambitions of key stakeholders, in particular the need to ensure opportunities for collaborative working between public sector bodies are identified.

Governance, monitoring and evaluation

The Combined Authority will continue to work closely with local authority partners to accelerate delivery of the chargepoint network. We will establish a board to oversee the delivery of the strategy and the action plan which will include representatives from all five district partners alongside officers from the Combined Authority. We will also set up working groups and information sharing forums for wider stakeholders to deliver specific actions from the action plan as needed.

We will develop a monitoring and evaluation plan which will track progress against the action plan alongside network delivery. This will include indicators assessing:

- Delivery of our action plan.
- Number of chargepoints (including charging types).

- Number of EV registrations.
- Utilisation of publicly funded chargers or chargers on public land.
- Satisfaction and confidence in the network.

Progress will be reported through existing governance channels for review.

We will also develop a standardised monitoring and evaluation approach for schemes delivered using public funding to allow us to effectively assess their impact, develop best practice and lessons learnt resources, and revise this strategy in the future.

We will review this Electric Vehicle Infrastructure strategy and its implementation plan annually as well as the West Yorkshire chargepoint specification for public chargepoints to ensure it reflects the latest standards and technology, best practice, and the needs of West Yorkshire. It is anticipated a new strategy will be developed within 5 years to ensure the document continues to reflect the requirements of West Yorkshire.



Action plan

We have identified a series of 15 actions to support the delivery of this Strategy themed around the challenges identified. These actions are designed to accelerate delivery of the chargepoint network and ensure the network develops in a way that delivers the best outcomes for everyone in West Yorkshire.

Figure 5 An overview of the action plan to support delivery of the West Yorkshire

<u>Challenges</u>	<u>Action</u>
Comprehensive coverage	EV01 – Secure funding & investment EV02 – Develop West Yorkshire EV planning guidance
Modal Shift	EV03 – Ensure intelligent & user focused site selection EV04 – Develop West Yorkshire Electric Vehicle Charger Allocation Tool
Grid Connection	EV05 – Continue work with Northern Powergrid EV06 – Explore innovative solutions for areas with restricted grid capacity
Customer experience and inclusivity	EV07 – Develop on-street charging standards EV08 – Ensure accessibility standards for chargepoints EV09 – Promote chargepoint specification and best practice
Supporting the transition EV	EV10 – Support fleet decarbonisation EV11 – Create communication and engagement programme
Skills & Training	EV12 – Support public sector partners develop expertise in EVI EV13 – Work with employers and training organisations
Sustainability & Resilience	EV14 – Adopt sustainable approaches to chargepoint procurement EV15 – Develop a standardised monitoring and evaluation approach

Table 2 West Yorkshire Electric Vehicle Strategy action plan

Action number	Action	Action details
EV01	Secure funding and investment	We will work with government and industry to identify and secure funding to deliver chargepoint schemes. We will strive for equality of access in EV charging with this funding, addressing gaps in charging network coverage across West Yorkshire, reducing inequalities and transport related social exclusion, ensuring no areas are left behind. We will use publicly funded investment in the network to increase network coverage in less commercially viable areas across West Yorkshire to ensure rural and deprived areas are not left behind.
EV02	Develop West Yorkshire EV planning guidance	We will work with planning colleagues to promote the latest standards as well as the recommendations set out in this strategy to ensure chargepoints are integrated and normalised within developments from the design stage. This will include developing West Yorkshire EV chargepoint planning guidance for the region, with consideration of building regulations and local ambitions.
EV03	Ensure intelligent and user focused site selection	We will work with stakeholders and industry using evidence led approaches to continue to identify optimum sites for chargepoints and use this to create a phased pipeline of schemes in anticipation of funding opportunities. Sites will be selected in a way that maximises their utility and the spread of the network, while minimising negative impacts.
EV04	Develop West Yorkshire Electric Vehicle Charger Allocation Tool	Utilising tools such as Transport for the North's EV Charging Infrastructure Framework alongside other sources of data, we will develop an electric vehicle charger allocation tool for West Yorkshire to support intelligent site selection. This will be informed by demand analysis and grid capacity, as well as prioritisation objectives, wider strategic objectives, and as wider social, environmental and health indicators.

Action number	Action	Action details
EV05	Continue work with Northern Powergrid	We will continue to develop our working relationships with Northern Powergrid as the DNO in West Yorkshire, with the aim of getting a better understanding of grid capacity and supporting coordinated planning activity.
EV06	Explore innovative solutions for areas with restricted grid capacity	In areas with grid capacity or grid connection constraint where there is a recognised need for charging infrastructure (such as rural areas), we will explore enabling options such as battery storage and solar power.
EV07	Develop on-street charging standards	We will continue to maintain and update the design standards for on-street charging solutions to help achieve the best outcomes for schemes, which reflect national guidance and local best practice (such as the West Yorkshire Healthy Streets Toolkit).
EV08	Ensure accessibility standards for chargepoints	We will look to ensure all chargepoints delivered by the Combined Authority and West Yorkshire districts meet the highest accessibility standards, adhering to PAS 1899 wherever viable.
EV09	Promote chargepoint specification and best practice	We will utilise and promote the West Yorkshire chargepoint specification for public chargepoint schemes, keeping the specification under periodic review to ensure it meets best practice standards.
EV10	Support fleet decarbonisation	We will work with employers in the region to support ambitions for fleet decarbonisation, specifically around identifying opportunities for collaborative work between organisations and promoting funding opportunities. We will run a forum to understand the needs and priorities of special cases, such as emergency service fleets who need to negate operational risks.
EV11	Create communication and engagement programme	We will develop a community and business engagement strategy to support our understanding of the needs of residents and businesses. This will include developing and promoting public engagement to close the information gap.

Action number	Action	Action details
EV12	Support public sector partners develop expertise in EVI	We will work within the Combined Authority and within West Yorkshire local authorities to develop the skills and expertise to develop, design, assess and deliver EV chargepoint schemes. This will include regional collaborative working, knowledge sharing and exploring training for officers.
EV13	Work with employers and training organisations	In exploring our skills requirements for the region, we will work with employers to support the creation of job opportunities that attract a diverse and skilled workforce and support communities to access green jobs in relation to EVs and chargepoints. We will raise awareness of the career pathways and skills needed for these green jobs, both for young people training and entering the workforce and those wishing to retrain. We will work with employers and educational institutions to ensure training opportunities are high quality and meet the specific training needs of the transition to EVs. We will also ensure through our contracts with suppliers that we look to create local green jobs where possible.
EV14	Adopt sustainable approaches to chargepoint procurement	We will continue to promote a sustainable approach to the lifecycle of chargepoints through procurement and will explore further opportunities for resource efficiency where appropriate.
EV15	Develop a standardised monitoring and evaluation approach	We will develop a standardised monitoring and evaluation approach for schemes delivered using public funding to allow us to effectively assess their impact, develop best practice and lessons learnt resources, and revise this strategy in the future.

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