NORTH NORTHAMPTONSHIRE ELECTRIC VEHICLE INFRASTRUCTURE STRATEGY

2024-2030

Approved
July 2024

North Northamptonshire Council

NORTH NORTHAMPTONSHIRE
ELECTRIC VEHICLE INFRASTRUCTURE

JOIN THE ELECTRIC REVOLUTION - CHARGE AHEAD

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Foreword

Road traffic currently accounts for a considerable proportion of North Northamptonshire's overall greenhouse gas emissions, so making the switch to battery electric vehicles (EVs) is going to be an essential part of our own journey towards Net-Zero.

By accelerating the switch away from fossil fuel vehicles, we have an exciting opportunity to drive improvements in air quality that will benefit the health and economy of this area and, alongside future technologies and automation, radically change the way we travel. The North Northamptonshire Electric Vehicle Infrastructure Strategy seeks to encourage wider adoption of EVs across the area and tackle barriers slowing down this transition. It also looks at how we can help change people's perceptions of EVs and what support we can give through information, local planning, and regulations.

I am acutely aware of the need for charging points and the imperative to make it easier to enable those without driveways to benefit from EVs wherever you live in North Northamptonshire. Charging should be just as convenient and stress-free for those who currently park on-street. It is important that the transition also includes buses, private hire vehicles, business fleets, vans and other forms of transportation.

Of course, we cannot make the transition to zero emission transport happen by ourselves. Continued advances in EV and battery technology and the use of other sustainable energy sources, such as Green Hydrogen, will help. This will also make it more practical and economical for larger vehicles to transition. However, there are key actions that we can, and are, taking as a Council that will make a real difference. We are already playing a key role in facilitating the roll out of much needed EV charging infrastructure, including on-street charging for those that cannot charge at home. During the last two years, we have installed EV charging sites in seven of our 12 towns, with more to come.

My aspiration is for North Northamptonshire to be a pioneer for Net-Zero living, a hot-bed for innovation, and lead the way on EV uptake. We have all the ingredients to make this happen, and through this Strategy we can help provide a catalyst for change.

COUNCILLOR MATTHEW BINLEY,
Executive Member for Highways, Travel and Assets

North Northamptonshire Council

Introduction to this strategy

The UK Government expects all local authorities to develop local Electric Vehicle Infrastructure Strategies. These strategies should set out how local charging needs will be met in the area at scale and over time, and where possible ahead of need; and, in doing so, consider where and to what extent provision is likely to be met by the market, without additional intervention. It states that local authorities can bring wider considerations into the planning and delivery of charging points, including approving on-street parking bays associated with Electric Vehicle Chargepoints (EVCPs) and balancing demands against other uses of roads and pavements. This will be increasingly important as we transition to mass adoption of EVs, and the number of drivers relying on public EVCPs increases.

The development of a North Northamptonshire Electric Vehicle Infrastructure Strategy (the Strategy) supports North Northamptonshire Council's (NNC) commitment to provide leadership to tackle climate change and achieve carbon neutrality, in combination with other measures to promote sustainable transport and active travel.

NNC believes that providing a public accessible network of EVCPs will play a vital role in facilitating the uptake of EVs and is a necessity to meet wider Net Zero ambitions and targets. This is integral to the Strategy, alongside other measures to inform, enable and influence residents, business and key public sector partners to transition to zero emission transport, as well as the Council's own steps towards transitioning its fleet.

Background

The transport sector is now the UK's largest source of greenhouse gas emissions and contributor to poor air quality. Air pollution, in part caused by fossil fuel use in vehicles, is responsible for more than 40,000 excess deaths in the UK every year[1].

In response, the UK has introduced some of the most progressive regulatory objectives and announced significant amounts of funding for the sector. The Government has announced the deadline for phasing out sales of new internal combustion engine (ICE) cars and vans in the UK by 2035. Announcements have also been made by Government covering requirements for different vehicles with a similar aim of phasing out ICEs. In June 2022, new rules came into effect mandating the installation of Electric Vehicle ChargePoint's (EVCPs) in most new homes and commercial buildings.

Due to the significant investment into battery technology, EVs are getting cheaper to buy and more efficient to run, many travelling over 200 miles on a single charge. The total number of EVs (battery EV cars, excluding plug-in hybrids) registered in the UK at the end of 2019 was 90,858[2]. At the end of 2023, the total number of EVs was 930,649 (more than a ten-fold increase). It is estimated that by 2030 there will be 11 million EVs on UK roads. However, the predicted rapid acceleration of the transition to EVs will only be delivered if vehicle owners are confident that they will have access to a comprehensive and convenient network of EVCP infrastructure. The forecast for a rapid increase in EVs means that there will be sustained growth in demand for public charging infrastructure.

In March 2022, a new national strategy[3] was launched by UK Government. This outlines a vision which seeks to change the availability of charging infrastructure as both a perceived and real barrier to the adoption of EVs. By 2030, it expects there to be around 300,000 public EVCPs as a minimum in the UK, but there could potentially be more than double that number. The national strategy identifies important roles for various stakeholders, including Ofgem, electric Distribution Network Operators (DNOs), ChargePoint Operators (CPO), operators of Motorway Services Areas, fleet operators, businesses, and local authorities, if this national target is to be achieved and deployment is to be more evenly spread.

Whilst the national strategy expects the market to lead the majority of public EVCP deployment, it states that local authorities have a crucial role ensuring that deployment reaches all areas, using sustainable commercial approaches (for example, procuring for expected high and low utilisation areas at the same time).

1. Royal College of Physicians (2016) Every breath we take the lifelong impact of air pollution **www.rcplondon.ac.uk/file/2912/download**
2. **Vehicle licensing statistics data tables - GOV.UK (www.gov.uk)**
3. HM Government **Taking charge: the electric vehicle infrastructure strategy (publishing.service.gov.uk)**

Local context

North Northamptonshire Council (NNC) is a relatively new local authority, created in April 2021. In July 2021, and at the earliest opportunity for doing so, it declared a climate emergency and has committed to becoming carbon neutral ('net zero') by 2030.

In 2021, NNC agreed its first Corporate Plan. A key priority in this plan is to demonstrate clear leadership on tackling environmental sustainability. This includes measures to collaborate with communities and businesses to tackle climate change and improve air quality; promote sustainable forms of transport fit for the future; and embed low carbon technology. NNC has also developed a Carbon Management Plan[4] (CMP). This plan details the wide-reaching work to be undertaken across all parts of the organisation to help achieve this target.

The Strategy supports these priorities and actions, and NNC believes that providing a publicly accessible network of EVCPs will play a vital role in facilitating the uptake of EVs and is a necessity to meet wider Net Zero ambitions, and support improved environmental, social and health outcomes.

Department for Transport data indicates that at the end of December 2023 there were 4,337[5] EVs registered in North Northamptonshire. This is a ten-fold increase since 2019, up from 419. Forecasts produced by CENEX[6] for North Northamptonshire predict a surge in the number of EVs increasing to about 24,000 by the end of 2025, and 116,000 by 2030 which, assuming the overall fleet size remains broadly constant, would represent about 40% of all cars registered in the area.

Government figures indicate that at the end of March 2024, there were 229[7] publicly available EVCPs in North Northamptonshire. CENEX forecasts the need for 660 EVCPs in the area by 2025 and 1,770 by 2030. These forecasts assume that at least one public EVCP is required for every 25 properties without off-street parking.

Delivering this scale of additional provision is the challenge faced by the Strategy.

4. **Carbon Management Plan | North Northamptonshire Council (northnorthants.gov.uk)**
5. Department for Transport Quarter 4 2022
6. Everest and Nevis models developed by the Centre of Excellence for Low Carbon and Fuel Cell Technologies – an independent, not-for-profit research technology organisation and consultancy
7. Department for Transport Quarter 4, 2022

Vision, Policies and Actions

NNC's 'vision' for electric vehicle infrastructure in North Northamptonshire is:

"Residents, businesses, and visitors will have confidence that they can charge electric vehicles conveniently and affordably. Electric vehicle infrastructure will develop to meet the needs of users now and in the future, and in doing so, support North Northamptonshire's transition to decarbonising transport, improved air quality, options for affordable clean transport, and Net-Zero Living."

This Strategy includes a series of policies and measures to support the transition to EVs and enable the area to take advantage of the associated environmental, social, and financial benefits. Some involve direct action or intervention by NNC, for example through setting policy, public investment in infrastructure, education, and campaigns; others seek to influence the decisions of key stakeholders, including other public sector bodies, residents, and businesses.

Key elements of our approach are set out as follows:

- Our EV charging network
  - Charging at home
  - Charging at destinations
  - Charging on route
- Superhubs for EV Charging
- Council Offices and Depots
- New Development
- Shared Electric Transport
- A Network for the Future
- Encouraging the Transition to EVs
- Delivering the Strategy

North Northamptonshire Electric Vehicle Charging Infrastructure Network

POLICY 1 The EV charging network across North Northamptonshire should be accessible, visible, and expand in scale and reach to provide confidence to switch to electric vehicles, and meet projected future need.

Our principles for establishing the EV charging network:

- Understand the opportunities and challenges for the EV charging network in North Northamptonshire.
- Provide a variety of EV charging options for residents without access to private off-street parking.
- Ensure the EV charging network is fair, accessible and visible.
- Identify opportunities to further support the decarbonisation of road transport and manage the impact of EV charging on the grid.
- Forecast the uptake of EVs across North Northamptonshire and the centres of demand for EV charging in the area.
- Attract commercial investment to accelerate local deployment of EV charging infrastructure to ensure high quality EV charging is available in the area.
- Work in collaboration with landowners, businesses, and other stakeholders to further increase EV charging provision.
- Ensure provision is made for accessible charging infrastructure which allows all residents to charge their vehicles, including those with disabilities.

Aside from on-street public charging, there are three main charging options: at home; at a destination (such as a workplace); and on-route. Each has a significant role to play and forms the basis of our developing network.

Charging at home

The cheapest and most convenient place for EV charging is at home. Home chargers are typically 7kWh (standard) and can fully charge an EV overnight. About two-thirds of all residential properties in North Northamptonshire have access to off-street parking. NNC will encourage residents with off-street parking to install EV charging infrastructure through awareness campaigns and other activities.

Charging at destination

Owners of commercial car parks[8] and managers of housing stock of all types of tenure will be encouraged to deploy public EV charging infrastructure in safe and accessible spaces, with pricing transparency. NNC will collaborate with these stakeholders to understand the timing of their implementation to align overall plans and forecasts. It will also encourage continued private sector investment in public EVCPs at train stations, supermarkets, retail parks, hotels, filling stations, tourist attractions, and other commercially operated venues. Workplace charging provides an opportunity for EV users to charge their vehicles for lengthy periods of time while at their workplace, and for a reasonable cost. NNC will engage with businesses and other employers to encourage the deployment of EVCPs and, if they have not already done so, consider developing a strategy for transitioning their fleet to EVs. NNC will also signpost businesses to schemes that support EVCPs.

8. **Workplace Charging Scheme: guidance for applicants - GOV.UK (www.gov.uk)**

Charging on route

Charging anxiety is a real issue impacting the transition to EVs for people who need to travel long distances on the strategic road network. This is despite National Highways reporting that drivers are never more than twenty-five miles away from a Rapid EVCP anywhere on England's motorways and other major A roads.

The network of Rapid EVCPs in the UK is one of the most extensive in Europe. National Highways are continuing to invest and in May 2023 announced plans to install a further 2,500 Rapid EVCPs across England's major road network by 2030.

Government's goal is to stimulate and capitalise on private sector investment to build and manage a self-sufficient public network so that large numbers of EVs can be charged, rapidly and easily, close to the existing strategic road network.

The A14 and A45 in North Northamptonshire are both managed by National Highways. Commercial investment has seen Ultra-Rapid EVCPs recently installed near Kettering adjacent to the A14 at Junction 8. Provision of similar facilities on the A14, A45 and other important link roads such as the A43 and A605 will help to meet the needs of those making longer journeys but also can help to serve local households and businesses. Ideally, facilities should have amenities for EV users, including toilets, lighting, and sufficient space and suitable safe access to accommodate both those charging and waiting to charge.

Ensuring the network is accessible, visible, dependable, and fit for the future

Whilst the largest demand for EV charging infrastructure will be in the urban areas, the EVCP network must also meet the needs of residents, businesses, and visitors in rural locations. This will include identifying suitable sites for Charging Hubs and on-street charging as well as encouraging provision on the strategic road network and important link roads that run through rural North Northamptonshire. Due to commercial viability, some rural communities are unlikely to have public EV charging infrastructure, therefore some facilities will be required to serve a wider catchment area.

The reliability of the EV charging network is of paramount importance. Out of order EVCPs undermines consumer confidence. The inability to charge a vehicle, due to an out of order charge point, is not only inconvenient but it could provide a safety risk if EV owners are stranded with no means to charge.

Closed networks that restrict charge access to subscribers or members are inconvenient for EV drivers, requiring them to carry multiple charging network cards or download multiple apps. Unrestricted access to roam across networks with a single card and contactless payment is widely seen as a crucial factor for future improvements to the EV charging network. NNC supports this approach to ensure that access to EV charging is simple and convenient.

Wherever possible, EVCPs should be sited with the safety and security of EV drivers and vehicles in mind, whether during daylight hours or night-time. This includes siting EVCPs in visible, open locations overlooked by nearby activity to provide natural surveillance. They should also have good natural or artificial lighting. This will ensure that concerns around personal security and crime are not barriers to using EVCPs at any time of day. Grouping EVCPs together in a Charging Hub can contribute to safety and make providing security measures more economical.

It is also important that charging infrastructure is deployed which considers the range of needs of users, including those with disabilities, to achieve inclusive design. The PAS 1899 standard has been created with the goal of making charging points accessible to everyone. NNC will work closely with chargepoint operators to ensure that EVCP infrastructure installed in the area is compliant with the guidance laid out in this standard to the extent possible.

Actions:

> Encourage residents with off-street parking to install EV charging infrastructure at home.
> Liaise with businesses and other employers to encourage the deployment of EVCPs and, if they have not already done so, consider developing a strategy for transitioning their fleet to EVs.
> Encourage owners of commercial car parks and managers of housing stock of all types of tenure to deploy public EV charging infrastructure in safe and accessible spaces, with pricing transparency.
> Work with landowners, businesses, public sector, and other stakeholders to understand the timing of their implementation for EV charging to align overall plans and forecasts.
> Encourage continued private sector investment in public EVCPs at train stations, supermarkets, filling stations and other commercially operated venues.
> Improve the availability of Rapid and Ultra-Rapid EVCPs on and near the strategic road network and important link roads across North Northamptonshire.
> Liaise with National Highways, the body responsible for the national road network, to ensure that EVCPs not only meet their strategic objectives but are also deployed, to the extent possible, in the most efficient locations to assist residents and businesses.
> Develop standards for the provision of public EV charging.
> Work closely with CPOs to ensure that chargepoints installed in North Northamptonshire meet the PAS 1899 guidelines and ensure that accessibility is considered when any chargepoint is deployed.

Charging On-Street

POLICY 2 EV charging infrastructure will be provided on-street to help meet future demand, ensure availability to charge conveniently and close to home for those without off-street parking, and to support earlier transition to EVs.

There are over 65,000 residential properties[9] in North Northamptonshire designated as flats or terraces. The significant majority of these do not have access to off-street parking. Over 70% of these homes are concentrated in the larger towns of Corby, Kettering, Rushden, and Wellingborough, but there are also significant numbers in the smaller towns and some villages.

Provision of on-street charging will particularly focus on urban and suburban locations where there are clusters of streets without off-street parking. On-street EVCPs should be in locations with high visibility and footfall without compromising the needs of pedestrians, and those with special mobility requirements. This will include locating EVCPs outside residential frontages where there is currently on-street parking. In some locations, this may necessitate 'build-outs' into the highway to accommodate EV charging infrastructure, particularly where footways are narrow. Trailing cables are a potential trip hazard for pedestrians and footway users. Sites should be designed in a way that minimises trailing cables.

NNC has worked with Believ[10] to deliver on-street EVCPs across North Northamptonshire[11] including sites in Corby, Desborough, Kettering, Higham Ferrers, Wellingborough, Rushden, and Thrapston. A few sites have seen complaints from residents due to concerns about the perceived loss of parking for non-EVs, particularly where demand for spaces is high. There have also been some concerns about deploying in areas that already have parking restrictions in place e.g., residents parking. These views need to be given consideration by NNC, along with other factors, when deciding on the location of on-street EVCP infrastructure. In some previous cases, EVCP installations have not progressed due to specific concerns raised during consultation.

However, government policy on the future sale of internal combustion engine (ICE) vehicles is clear and increased growth in EV ownership is inevitable. NNC's role is to facilitate this journey and therefore, enabling and providing for on-street EVCP infrastructure ahead of demand is vital to this transition, encouraging residents to switch with confidence. NNC is aware that this is also important for residents that rely on work vehicles as more businesses transition their fleet to EVs.

It is important that EVCPs are available for charging, both for the convenience of EV users, and to optimise EV infrastructure. Where provision is made by NNC for on-street EV charging, the presumption is that associated parking bays will be dedicated for EV charging use only. This will involve the preparation of a Traffic Regulation Order (TRO). The process of identifying and consulting on sites, and associated parking restrictions, will be aligned by NNC to enable a more joined-up engagement with statutory bodies and

9. Land and Property Gazetteer, April 2023
10. The ChargePoint Operator (CPO) responsible for EVCPs installed through the Virgin Park and Charge (VPACH) project
11. **Electric car chargers** | North Northamptonshire Council (northnorthants.gov.uk)

local residents. This will help to simplify and speed-up the consultation and the decision-making process; whilst also reducing bureaucracy and costs.

The use of technology will be considered to help optimise the use of parking bays allocated for EV charging. This can provide alerts when a space is being used but the associated EVCP is not charging a vehicle.

NNC sees advantages in the provision of Fast Chargers, rather than Standard Chargers, for on-street charging as these can charge a greater number of vehicles within a 24-hour period and therefore optimise the use of bays dedicated for EV charging.

Chargepoint operators require a Section 50 permit issued by the Highways Authority to enable them to install new EVCPs on the highway and ensure they have access to inspect, clean, maintain, and repair the infrastructure when necessary, and remove it at the end of its lifetime. NNC will seek to streamline the Section 50 process to improve efficiency e.g., with common requirements and standards, and by aggregating obligations for suppliers installing and operating multiple EVCPs.

Other areas (e.g., Westminster in London) have deployed the use of lamppost charging. A significant drawback of lamppost charging is the slow, low-powered charge capacity which means that only one or two EVs could be charged to full within any 24-hour period. Moreover, if a lamppost is located at the rear of the kerb, this would need further works to avoid trailing cables across the pavement. Lamppost charging may have a role to play in some residential areas where other solutions are not viable.

Cross pavement solutions have been trialled elsewhere to enable householders without off-street parking to charge on-street from their home. The householder installs their own EVCP on the external wall of the property and a gully enables the charge cable to reach the vehicle, kerbside, without being a trip hazard. Guidance will be developed by NNC for householders considering gully solutions once substantial trials have concluded and the implications are clearer.

Charging On-Street - Actions:

> Undertake a strategic assessment of potential demand for on-street EVCPs across North Northamptonshire.
> Identify locations for on-street charging to serve concentrations of properties without off-street parking.
> Assess any site-specific mitigations required to accommodate EV charging infrastructure, particularly where footways are narrow, or where road and junction layouts restrict options.
> Implement parking restrictions for bays associated with EVCPs to ensure that they are only available for EV charging.
> Align consultation processes on potential sites and associated parking controls to reduce bureaucracy and costs.
> Streamline the Section 50 process for EVCP installations to improve efficiency.
> Encourage the use of technology, including sensors, to support detection, education, and enforcement of unauthorised parking in bays reserved for EV use only.
> Provide guidance for householders considering cross pavement home-charging solutions.

Destination Charging

POLICY 3 The creation of off-street EV Charging Hubs will be prioritised in public NNC car parks and at major visitor attractions. Parking bays associated with EV charging infrastructure will be restricted to charging use only and will be managed to encourage both destination and overnight EV charging for all types of EV ownership, including private vehicles, shared or car club vehicles, and taxis.

More than a third of households in North Northamptonshire have limited or no access to home EV charging as they park on the street. This could present a significant barrier to EV take-up. Work undertaken through the North Northants to Net Zero (NN2NZ)[12] project found that, after off-street parking, the most effective and best place to install charge points is across the existing network of car parks.

A primary focus of the Strategy is providing convenient EV charging opportunities for residents through the provision of EV Charging Hubs in public car parks. These are ideal sites for Charging Hubs, especially where they are close to residential areas without off-street parking. A further benefit to users is nearby amenities, offices, shops and workplaces. NNC believes that the provision of EVCPs in these car parks may attract EV users to the area, stimulate spend in nearby shops and provide a benefit to the local economy.

Many NNC owned car parks are in or close to town centres, or serve nearby housing, leisure centres, shops, offices and other uses. All these car parks will be assessed for their ability to host a Charging Hub.

Opportunities will be considered by NNC for installing solar canopies and energy storage systems at selected Charging Hubs. Some car parks may also be suitable locations for Mobility Hubs especially in town centres and at rail stations. These could provide additional facilities including signposting, shelters, benches, Wi-Fi, pop-up cafes and importantly access to a combination of shared transport options, for example car club EVs, electric bikes, electric cargo bikes, and electric scooters.

Charging Hubs will have a minimum of two EVCPs. These will normally be Fast Chargers, although some larger car park sites will have additional provision and may include Rapid Chargers.

Other suitable sites for Charging Hubs include major local attractions and locations on or close to strategic network where there are suitable facilities for EV users whilst charging. Examples of suitable sites include the Chester House Estate, Stanwick Lakes and NNC-run country parks where EV users can enjoy the attractions and local amenities whilst charging.

Normally locations for Charging Hubs will be accessible to the public 24/7. Exceptions include visitor attractions which are closed at certain times of the day.

For parking bays restricted to EV charging, NNC will encourage the use of technology, including sensors, to support detection, education, and enforcement.

12. **NN2NZ – North Northamptonshire to Net Zero - Electric Corby**

NNC will collaborate with local councils, National Health Service bodies, and other public sector organisations to better understand their ambitions and plans and help inform future provision of EV charging infrastructure and complementary initiatives which promote the use of EVs. This includes specifically Kettering General Hospital, Corby Community Hospital, Willowbrook Health Centre, and Isebrook Hospital in Wellingborough.

Local town and parish councils may want to work with NNC to consider the use of land associated with a community asset, such as a village hall, to deploy a public EV charging facility available to residents, businesses, and visitors. Locations must be accessible to the public and will be dedicated through a lease or other arrangement for the installation, operation, and maintenance of EV infrastructure for the length of any associated contract with a Charge Point Operator (CPO).

Destination Charging - Actions:

> Assess the suitability of public car parks as locations for Charging Hubs and related provision.
> Consider opportunities for installing solar canopies and energy storage systems at selected Charging Hubs.
> Identify suitable locations for Mobility Hubs which will include EV charging infrastructure.
> Identify suitable sites for Charging Hubs at local visitor attractions.
> Encourage the use of technology, including sensors, to support detection, education, and enforcement of unauthorised parking in bays reserved for EV charging use only.
> Collaborate with local councils, National Health Service bodies, and other public sector organisations to better understand their ambitions and plans and help inform future provision of EV charging infrastructure and complementary initiatives which promote the use of EVs.
> Provide the opportunity for town and parish councils to put forward potential sites for deploying a public EV charging facility.

Superhubs for EV Charging

POLICY 4 Provision will be made to enable the creation of one or more Superhub for EV Charging in the area.

A 'Superhub' can offer a larger range of EVCP infrastructure including Fast, Rapid, and Ultra-Rapid charging meeting the diverse needs of residents, visitors, and through travel by EV users.

NNC anticipates that Superhubs would have the capacity to charge more than forty vehicles simultaneously and hundreds of EVs within a 24-hour period due to the charging choice, including ultra-rapid charging. These Superhubs should be powered by renewable energy sources. Energy network capacity and storage to manage demand on the power network would be key considerations.

The availability of multiple CPOs should result in competitive pricing, benefitting EV owners. This has the potential to make an enormous difference to the overall charging capacity in North Northamptonshire.

Superhubs should be strategically placed either in an existing urban area or other destination which is able to offer sufficient parking and facilities for EV users whilst charging. NNC believes that this could also support nearby shops and the local economy through additional spend by EV users whilst vehicles are being charged.

The Rushden Lakes area could be an ideal location for a Superhub. This is due to its strategic location on the A45 which is part of the national road network, the wide range of facilities, popularity for visitors, and proximity to Rushden, Higham Ferrers, Wellingborough, Irthlingborough, and other rural communities.

Superhub for EV Charging - Action:

> Investigate the potential to support the creation of one or more Superhub for EV charging in the North Northamptonshire area.

Council Offices and Depots

POLICY 5 EV charging infrastructure will be installed at Council offices to provide charging for users of the premises. Infrastructure will also be provided at Council depots to charge its fleet and support the transition to EVs.

NNC has offices and depots across North Northamptonshire. The intention is that EVCPs will be installed across our estate to provide the opportunity for staff and visitors to charge.

NNC also has a large fleet of around four hundred vehicles. These include heavy goods vehicles (HGVs) based at depots in Corby, Kettering, and Wellingborough, about 120 vans used for the maintenance, servicing and refurbishment of local social housing and buildings, and other vehicles used for adult social care and other services. NNC is committed to delivering a managed transition of its fleet to EVs where feasible and transitioning to other sustainable fuels for HGV fleet where EV technology is not suitable or too costly. This transition needs to ensure service reliability is retained and consider current contractual leasing arrangements and expiry. NNC will commission work to inform how best to decarbonise its fleet.

Provision will be made at NNC depots for suitable infrastructure to charge these vehicles to service the North Northamptonshire area. This activity will be managed separately to the deployment of EV charging infrastructure supported through the Local Electric Vehicle Infrastructure (LEVI) fund. Consideration will be given to opportunities for renewable energy generation e.g., the use of solar canopies and/or the road surfaces, and battery storage at the depots to complement the provision of EV infrastructure.

NNC's target is to complete the fleet transition to EVs, and other zero/low carbon options, by the end of 2028[13] .

Council Offices and Depots - Actions:

> Install additional EVCPs across the NNC estate to support employees, and visitors to our sites, to charge their vehicles.
> Commission work to inform how best to decarbonise the Council fleet.
> Deliver a managed transition of the Council fleet to EVs where feasible and transitioning to other sustainable fuels for HGV fleet where EV technology is not suitable or too costly.
> Install EVCPs at Council depots to charge the fleet.
> Consider opportunities for solar canopies, other renewable energy generation, and energy storage systems at Council Offices and Depots to complement EV charging infrastructure.

13. The HGV fleet will be transitioned to other sustainable fuels where EV technology is not suitable or too costly

New development

POLICY 6 All new development proposals for housing, leisure, business, commercial, retail, supermarket or other developments which create places of work and generate travel demand will include provision for EV charging infrastructure which is able to meet future needs.

It is important that provision for EV charging infrastructure is considered early in the planning stage as part of all new housing and other developments, and all redevelopments.

Local planning policies in England are guided by the **National Planning Policy Framework (NPPF)**[14] which plays a significant role in future proofing new developments. The NPPF states that the planning system should help to shape places in ways that contribute to significant reductions in greenhouse gas emissions, and infrastructure to mitigate climate impacts and support renewable and low carbon energy and infrastructure. Current Government guidance states that all new EVCPs being installed by developers will need to provide a minimum power supply of 7kW or have the cable routes ready for this supply. A cost cap of £3,600 on average per charge point above the grid connection costs applies (although cable routes will still be required if the cost cap is triggered). In addition, in June 2022, the government introduced '**Part S - Infrastructure for charging electric vehicles**' to the Building Regulations 2010. This requires the installation of EV charging points in several circumstances, including:

- all new homes with off-street parking;
- conversions to residential use which have a car park; and
- non-residential buildings with more than 10 parking spaces.

Through the North Northamptonshire Strategic Plan review, NNC will seek to directly influence EV ChargePoint provision in new developments to ensure that it is sufficient for future requirements and to improve provision of EV charging facilities, zero emission travel, and other complementary policy approaches in support of the wider Net Zero Carbon Living agenda. Developers will be encouraged to make this an integral part of their plans for new development. This will include incorporating e-mobility hubs for shared transport in all major developments, including 'garden communities'. communities'.

New Development - Actions:

> Encourage developers to rise to the challenge of ensuring that these homes are built to the best low carbon standards, embracing renewable energy, and supporting widespread EV take-up.

> Influence EV chargepoint provision in new developments to ensure that this is sufficient for future requirements and to improve provision of EV charging facilities, zero emission travel, and other complementary policy approaches in support of the wider Net Zero living, including the incorporation of e-mobility hubs for shared transport in all major developments, including 'garden communities'.

14. The revised National Planning Policy Framework sets out government's planning policies for England and how these are expected to be applied. Last updated 20 July 2021

Shared Electric Transport

POLICY 7 Provision will be made for different modes of shared electric transport to provide flexible alternatives to ownership. This will include the provision of charging infrastructure and parking for shared EVs.

The North Northamptonshire Bus Service Improvement Plan[15] outlines the Councils' aspiration for the provision of a zero-carbon local bus network with increased patronage, reliability, and accessibility. Stagecoach is the main operator in the area. However, the fleet has currently no net zero capability and operates up to 40 local buses in peak hours out of Wellingborough, Corby, and Kettering.

Transitioning local bus fleets to be electric can bring benefits including improved air quality and noise reduction and support the journey to Net Zero carbon emissions. NNC will work with Stagecoach and other bus companies to encourage a transition to EVs or other zero emission vehicles, drawing on learning and expertise from UK Government's new Bus Centre of Excellence and supporting grant funding opportunities.

Corby has one of the largest taxi fleets outside of London, and a long history of residents' preference to use taxis. This has benefits, as a shared vehicle on a taxi rank only driven when transporting paying customers or returning to the rank, has a lower carbon footprint, particularly if the taxis are electric. Corby also has a significant electric taxi fleet.

NNC supports a shift to EV for all taxis across North Northamptonshire ahead of 2030. The creation of Charging Hubs in public car parks, will help to deliver more Fast and Rapid chargers across the area which could benefit taxis needing a quick charge between fairs, as well as other domestic and business EV use. EV taxis will also benefit from the provision of more on-street EVCPs.

Car clubs are also becoming increasingly popular in areas where businesses such as Zipcar, Co-wheels and Enterprise are operating. These cater for residents that do not require a vehicle enough to warrant the expenditure of owning one outright but would rather hire cars as and when they need them, and to suit journey requirements at that time.

NNC will explore opportunities for introducing other forms of shared EV transport to meet the needs of residents, businesses, and visitors. This will include EV car clubs, electric cargo bikes, and other forms of zero-emission transport. Convenience is important for shared transport as it is for private transport.

Consideration of shared EV transport should not be restricted to the urban areas. NNC is keen to investigate the potential to pilot one or more shared community EV projects, supported through local EVCP provision. This approach would allow residents who do not require a car regularly, or cannot afford an EV, to have access to lower-cost, zero-carbon transport. These initiatives could be community led and/or managed.

The success of the Northamptonshire electric scooter trial, with over 44,460 registered users and more than 2 1.7 million rides in North Northamptonshire since January 2021,

15. **Enhanced partnerships for buses** | North Northamptonshire Council (northnorthants.gov.uk)

indicates that there is strong demand for shared micromobility[16] as an alternative to private car travel. About a third of these trips involve commuting to and/or from work. Other initiatives such as the successful trial of Artificial Intelligence (AI) electric delivery robots in Higham Ferrers, Rushden and Wellingborough, and the latest trial in Raunds, provide further examples of how innovation in micromobility and logistics' is helping to transform zero carbon transport solutions.

NNC supports the continuation of these, and similar, trials, provided that they are part of a responsible and regulated approach involving a formal collaboration agreement with the operator.

NNC will seek to allocate dedicated parking for shared transport to encourage use and convenience. This will include considering dedicated parking for e-car clubs, e-cargo bikes (right) and other EV modes, including micromobility. NNC will also investigate how it can facilitate and encourage use of electric cargo bikes to support local deliveries.

Shared Electric Transport - Actions:

> Work with local bus companies to encourage a transition to EVs.
> Make provision for EVCPs near to taxi ranks.
> Explore and enable opportunities for different forms of shared transport to meet the needs of residents, businesses, and visitors. This will include EV car clubs, electric cargo bikes, and other forms of zero-emission transport.
> Allocate dedicated parking for shared EV transport.
> Support trials and other opportunities to pilot and deploy new forms of shared electric transport.
> Investigate how electric cargo bikes can be used to support local deliveries.

16. Micromobility is a term used to define types of vehicles that are small and can transport people or goods.

POLICY 8 Provision will be made to encourage smart charging technologies to optimise the capacity of the energy network to support EV charging infrastructure. Provision will also be made to future proof the network by providing passive charging infrastructure.

The capacity of the local Electricity Grid can limit the speed of chargers which can be installed, especially when multiple units are installed in one location. Smart charging is an important part of the solution to manage the strain on the Grid network and help the viability of potential sites for EVCPs. Load balancing is a basic form of smart charging already deployed which can vary the amount of power routed to each unit. When only one vehicle is charging then the maximum power can be provided, but when multiple vehicles charge simultaneously then the power can be equally split between them, although this must always provide for a meaningful charge.

Smart charging can also control the time at which a vehicle is charged to avoid overloading the local Grid connection and managing spikes in demand. Advantages of this include allowing charging at times when electricity is cheaper and adjusting the time of charging to avoid local constraints. This could reduce the need for, and cost of, local Grid upgrades. A further form of smart charging is 'Vehicle to Grid.' This uses a bi-directional charger to feed electricity from an electric vehicle battery back into the Grid at peak times. This may be better suited to domestic charging rather than Charging Hubs. NNC will work in close collaboration with the Distribution Network Operator (DNO) to understand any constraints to the deployment of EV charging infrastructure. That way appropriate Grid upgrades or alternative solutions can be explored including the use of battery storage to manage usage, and new local renewable generation.

NNC is also mindful that technologies are emerging which could have a significant role to play. An example of this is 'induction charging.' This relies on a transmitter coil in a charging pad using electromagnetic energy to transmit power to a receiver coil within an object to be charged. A vehicle would simply need to pass over a charging pad and remain stationary to begin charging. Opportunities to trial this and other technologies will be investigated by NNC and, where viable, supported.

It is important that the charging network is easily expandable in the future as EV uptake increases and there is more demand for EVCP infrastructure. This means installing both active EVCPs and passive[17] infrastructure which enables for a more cost-effective extension of provision. NNC will monitor usage of charging points installed with its support to determine whether additional charging points are required and in which locations.

Future proofing also involves, as far as possible, embedding capacity for EV infrastructure into other highways, transport and construction projects and programmes to encourage and support further expansion.

Looking to the future, the wider goal is to completely integrate charging with smart energy systems, delivering benefits to the Grid, and the potential for lower cost energy, or even negative electricity tariffs for those willing to charge flexibly.

17. Cabling so that further chargers can be added when demand increases in the future

A Network for the Future - Actions:

> Work with the Distribution Network Operator (DNO) and ChargePoint Operators (CPOs) to understand any constraints to the deployment of EV charging infrastructure.
> Deploy passive infrastructure to enable the EVCP network to be expanded more cost-effectively to meet projected demand.
> Encourage the use of smart charging technologies in the planning and deployment of the EVCP network.
> Support trials and other opportunities to pilot and deploy new EV charging technologies.
> Facilitate the integration of EV charging with smart energy systems.

Encouraging the transition to EVs.

POLICY 9 The transition to EVs will be encouraged and supported through the provision of information, campaigns, public engagement activities, collaboration, trials, and other initiatives.

Installing a suitable EV charging infrastructure network is only one aspect of this strategy; encouraging the uptake of electric vehicles within North Northamptonshire is also crucial to realise the benefits of green and sustainable travel, including for health and the environment.

NNC works with numerous other bodies and stakeholders and in various roles. It can draw on its relationships with others to share knowledge and experience, and stimulate a wider shift towards Net Zero Living, and more specifically the transition to EVs. Support of key influencers and partners will be critical for a Net Zero carbon future. These include UK Government and its agencies (such as OZEV and the Energy Saving Trust), other public sector partners including National Health Service bodies, organisations such as Electric Places, business umbrella groups, major employers, community groups, local bus companies and other transport operators.

Procurement can play a significant role in influencing change. Outcomes from the procurement of works, goods and services should reflect corporate values and priorities, including Net Zero ambitions. NNC is well placed to incorporate sustainability targets as part of its procurement contracts, and in doing so, can influence the behaviour of suppliers. It will seek to ensure that procurement outcomes help to stimulate suppliers transition to EVs and low carbon emission fleet and logistics' practice where possible. It will also encourage other bodies, if not already doing so, to follow a similar approach. NNC will engage with residents, businesses, and other stakeholders to understand any concerns with the transition to EVs. It will also use their knowledge of the area to identify potential locations for EVCPs. The Request a Chargepoint online form[18] enables locations to be put forward for consideration. This is a popular facility and suggestions have already led to the installation of EVCPs in the area.

NNC will supply and promote information about public EV charging in North Northamptonshire and increase awareness of the benefits of EVs to the public through online and other communication channels. This will include developing campaigns and events which promote EV transport and local action. A particular focus will be encouraging residents with access to off-street parking to switch to EVs and install charge points in their garages or on their drives. NNC will also ensure that information on the location, speed and availability of charge point infrastructure is readily available to the public.

It is clearly desirable to reduce, and if possible, avoid altogether, the use of more polluting vehicles in urban areas. NNC will explore how this can be achieved including through encouraging operators to shift to cleaner vehicles, new policies, incentives, and supporting trials.

18. **Register your interest in on-street electric vehicle charging NNC - Introduction - Online form (achieveservice.com)**

NNC will continue to encourage the use of other electric vehicles, including electric bikes, electric scooters[19], and delivery robots[20]. It will also identify emerging technologies and charging options as they develop, to ensure infrastructure remains fit for purpose and meets the needs and demands of users. This will involve collaborations with the private sector. Trials will be used by NNC to familiarise residents and users with innovative technology and raise public awareness.

Encouraging the transition to EVs - Actions:

> Ensure that NNC procurement contracts include measures to support EV provision and use.
> Engage with residents, businesses, and other stakeholders to understand any concerns regarding the provision of EVCPs.
> Maintain a Request a Chargepoint online form to enable sites for EVCPs to be identified by local councils, residents and businesses.
> Supply and promote information about public EV charging in North Northamptonshire.
> Raise awareness of the benefits of EVs through online and other communication channels.
> Ensure that information on the location, speed and availability of ChargePoint infrastructure is readily available to the public.
> Encourage local operators and businesses to shift to cleaner vehicles.
> Continue to encourage the use of other electric vehicles, including electric bikes, electric scooters , and delivery robots.
> Collaborate with the private sector and others through trials to familiarise residents and users with innovative technology, raise public awareness, and deliver better services which support a transition to Net Zero living.

19. The Northamptonshire electric scooter trial operates in Corby, Kettering, Burton Latimer, Wellingborough, Higham Ferrers, and Rushden. The use of private electric scooters is illegal unless on private land with the owners provision.
20. The delivery robot trial with Starship currently operates in Wellingborough, Higham Ferrers, and Rushden. The delivery trial with DPD currently operates in Raunds.

Delivering the Strategy

We will deliver:

Year	Deliverables
2024	1. Government approval of the Business case for LEVI capital funding by March 2024.
	2. Contract let for the deployment of EV infrastructure through the LEVI initiative by end of 2024.
2025	3. Deployment of EV infrastructure through LEVI to start by March 2025.
	4. Public EV ChargePoint's will be available in all 12 towns across North Northamptonshire by the end of 2025.
	5. At least 250 public EV ChargePoint's will be available by the end of 2025.
2026	6. EV ChargePoint's will be available in all suitable NNC car parks by the end of 2026.
2027	7. At least 500 public EV ChargePoint's will be available in the area by the end of 2027.
2028	8. NNC's fleet transition to EVs for all vehicles below 7.5t will be complete by the end of 2028.
2029	9. At least 80% of households without off-street parking will be within 250m of a public EV ChargePoint by the end of 2029.
	10. All EV ChargePoint's delivered using public funds will have an average uptime of at least 99% in any 12-month period.

Funding the Strategy

NNC will seek to maximise external funding opportunities to deliver an EV ChargePoint (EVCP) network. Routes include the current Local Electric Vehicle Infrastructure fund (LEVI) and other programmes from the Office for Zero Emission Vehicles (OZEV), government departments and other agencies, and consideration of NNC funding sources. It will also work with local businesses, landowners, ChargePoint Operators (CPOs) and other commercial operations to encourage the provision of public EVCPs without the need for public funding.

EVCPs delivered through public funding will be focused on meeting the needs of residents in areas without off-street parking. It is anticipated that this will be primarily through Fast chargers although it is likely that Rapid chargers will also be deployed in some town centre car parks.

Public funding will be used to leverage investment from a CPO to install, operate and maintain the EV charging infrastructure for a specified period. The expectation is that any contract with a CPO will include a 'revenue share', or similar, agreement. It is intended that any revenues generated to the public sector will be allocated to a dedicated EV fund managed by NNC for reinvestment in charging infrastructure or complementary measures, including on-going demand stimulation.

The Strategy favours the investment of public funding in at least Fast EV charging infrastructure, although there may be sites where constraints require Standard or Slow charging solutions. Public funding will not be used to support private parking, or car parks owned or managed by the private sector.

Monitoring progress

The success of the Strategy as a catalyst for delivering a step-change in the availability of public EVCPs across North Northamptonshire will be measured against the following Key Performance Indicators and the Headline Targets.

Key Performance Indicators:

- Number of fast EV ChargePoint's available to the public - more is better
- Number of rapid EV ChargePoint's available to the public – more is better
- Number of EVs registered in North Northamptonshire – more is better
- Number of EV ChargePoint's per 100,000 population – more is better
- Number of EVs registered in North Northants per EV ChargePoint available to the public – less is better
- Government approval of the Business case for LEVI capital funding by March 2024.
- Contract let for the deployment of EV infrastructure through the LEVI initiative by end of 2024.

Headline Targets

- Deployment of EV infrastructure through LEVI to start by March 2025.
- Public EV ChargePoint's will be available in all 12 towns across North Northamptonshire by the end of 2025.
- At least 250[21] public EV ChargePoint's will be available by the end of 2025.
- EV ChargePoint's will be available in all suitable NNC car parks by the end of 2026.
- At least 500 public EV ChargePoint's will be available in the area by the end of 2027.
- NNC's fleet transition to EVs for all vehicles below 7.5t will be complete by the end of 2028.
- At least 80% of households without off-street parking will be within 250m of a public EV ChargePoint by the end of 2029.
- All EV ChargePoint's delivered using public funds will have an average uptime of at least 99% in any 12-month period.

NNC will also monitor delivery against the actions identified in the Strategy.

21. At the end of March 2024 there were 229 public EV ChargePoints in North Northamptonshire, up from 128 at the end of 2022.

Appendix A: Glossary of terms

Active charging provision: Charge Points which are ready to use.

Active Travel: Making journeys by physically active means such as walking or cycling.

Build-out: The construction of a protected bay with an EV charge point in the highway with an associated bollard.

Charge Point Operator (CPO): The entity responsible for the operation and management of charging stations, including maintenance, billing, and customer support.

Chargepoint: A specific outlet or socket within a charging station where an electric vehicle can be connected for charging. A Public EV Charging point means a location which is not private and is available for public charging. This includes supermarkets, leisure centres, shopping centres, filling stations etc. as well as charging points facilitated by NNC in car parks and on-street locations.

Charging Power: The amount of electrical power delivered to an electric vehicle during the charging process, measured in kilowatts (kW).

Charging Session: The period during which an electric vehicle is connected to a charging station and actively receiving electricity.

Charging Speed: The rate at which an electric vehicle can be charged, typically measured in kilowatts (kW) or miles of range added per hour.

Electric Places: The operating name of Electric Corby CIC.

Electric Vehicle (EV): A vehicle that is powered by an electric motor and relies on electricity stored in batteries for propulsion.

Electric Vehicle Infrastructure (EVI): The infrastructure or equipment used to supply electricity for charging electric vehicles. It includes charging stations, connectors, and related hardware.

Fast Charging: Charging that takes place between 8 – 49kW. A 22kW per hour fast charger adds approximately 20 miles range per 20 minutes of charging.

Gul-e: A term used for a durable gully/channel that is installed in the footway. The charging cable is pressed into the gully to avoid any trip hazard.

Load Management: A strategy employed by charging infrastructure operators to optimize the distribution of electricity among multiple charging stations and manage the impact on the electrical grid.

Low Speed (Slow) Charging: Charging that takes place between 0 – 3.7kW.

Net Zero: Is the balance between the amount of greenhouse gas that is produced and the amount that is removed from the atmosphere.

Passive Charging provision: refers to cabling being prepared so that chargers can be added when demand increases in the future.

Peak Demand: The maximum level of electricity consumption in each time period, often associated with periods of high usage, such as evenings when people return home from work and start charging their EVs.

Plug Type: The specific design and configuration of the charging connector used for a particular type of electric vehicle, such as Type 1, Type 2, Chademo or CCS.

Rapid Charging: Charging that takes place between 50kW – 149kW. A 50 kW per hour rapid charger add approximately 40 miles of range per 20 minutes of charging.

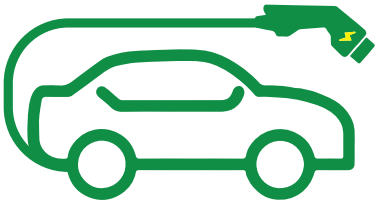
Smart Charging: A charging strategy that utilizes advanced technologies, such as communication between the vehicle and the charging station, to optimize charging efficiency, load management, and grid integration.

Standard Charging: Charging that takes place between 3.7 – 8kW

Ultra-Rapid Charging: Charging that takes place at 150kW and over

VPACH: Virgin Park and Charge project sponsored by INNOVATE UK

Zero Emission Vehicle: A vehicle that does not produce internal combustion engine exhaust gas or other pollutants.



NORTH NORTHAMPTONSHIRE

ELECTRIC VEHICLE INFRASTRUCTURE

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