



**West
Northamptonshire
Council**

West Northamptonshire Electric Vehicles Infrastructure Strategy 2024-2030 Public Consultation Executive Summary

1. Table of Contents

2.	Introduction	3
3.	Objectives	4
3.1:	To have Appropriate Charging for EVs.....	4
3.2:	To ensure Charging Networks are Reliable, Affordable, Accessible, and Maintained.....	4
3.3:	To support Transport Decarbonisation Policies	4
3.4:	To support Economic Growth.....	5
3.5:	To Improve and Make Best Use of Land and Assets Available.....	5
4.	Policies	5
4.1.	Policy 1: Strategic charging infrastructure network	5
4.2.	Policy 2: Equitable and Accessible Charging	5
4.3.	Policy 3: Residential Charging	5
4.4.	Policy 4: Charging Hubs and Super Hubs	5
4.5.	Policy 5: Smart Charging	6
4.6.	Policy 6: New Development	6
4.7.	Policy 7: Shared Transport	6
4.8.	Policy 8: Public Intervention and Value for Money	6
4.9.	Policy 9: Collaboration and engagement	6
4.10.	Policy 10: Leading by Example – EV Adoption in Council Sites and Fleets..	6
5.	Electric Vehicle Charger Types	6
6.	Electric Vehicle (EV) Uptake and Infrastructure Planning	7
6.1.	EV Infrastructure Site Selection Approach:.....	10
7.	Strategic Delivery	13
8.	Engaging with Communities	13
9.	Performance indicators.....	13
10.	Conclusion	14
11.	Glossary.....	15
11.1	Appendix A.....	15
11.2	Appendix B: References	17

2. Introduction

The West Northamptonshire Electric Vehicle Infrastructure Strategy (WNEVIS) has been developed to respond to contribute to the national efforts to reduce carbon emissions from the transport sector, which in 2021 accounted for 25% of the UK's total greenhouse gas emissions, equating to 108 MtCO₂e (million metric tons of carbon dioxide equivalent). With cars alone contributing 52% of these emissions, transitioning to electric vehicles (EVs) becomes crucial. EVs can emit up to 43% less CO₂ compared to diesel vehicles, making them pivotal in achieving climate targets.

As of December 2023, approximately 975,000 fully electric cars were registered in the UK, with 315,000 battery-electric cars added that year alone—a growth of 18% from 2022. This surge underscores the growing demand for EVs and highlights the necessity for an expansive network of charging points. Despite this, challenges remain, as 14% of EV drivers lack access to private off-street parking, necessitating accessible public charging solutions.

The UK government aims to scale up public electric car chargers to 300,000 by 2030 to accommodate this growth and support the phase-out of petrol and diesel vehicles by 2035. WNEVIS aligns with these national goals, aiming to ensure equitable access to EV charging infrastructure across West Northamptonshire.

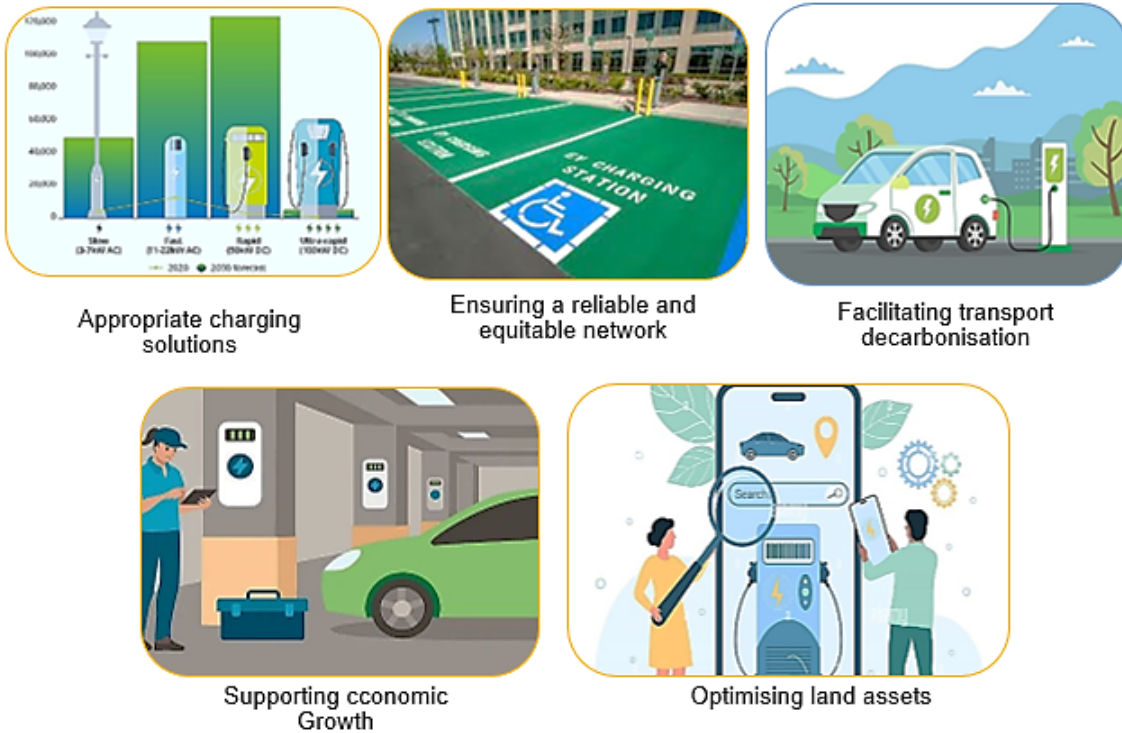
Our Vision

Supporting West Northamptonshire becoming a more sustainable place to live and work through pervasive availability of public EV charging facilities in those places which benefit from them, especially residential streets, with a range of charging speeds, delivered efficiently, meeting the needs of people of different abilities and backgrounds.

3. Objectives

The objectives of the WNEVIS strategy aims to achieve the following in Figure 1.

Figure 1: Key Objectives of EVI Strategy



3.1: To have Appropriate Charging for EVs

Implement a diverse range of charging solutions including on-street chargers, rapid charging stations, destination chargers, and workplace charging, while promoting innovative cost-saving and convenient solutions. Prioritise deploying on-street charging infrastructure in areas with limited off-street parking and collaborate with local businesses and stakeholders to install charging points in strategic locations.

3.2: To ensure Charging Networks are Reliable, Affordable, Accessible, and Maintained

Ensure regular maintenance and upgrades of existing charging infrastructure to guarantee accessibility for all residents, including people with disabilities, support pricing strategies promoting fairness and affordability, and monitor network performance to promptly address issues and minimize downtime.

3.3: To support Transport Decarbonisation Policies

Advocate for supportive policies at national and regional levels, collaborate with government agencies to develop incentives for EV adoption and provision of infrastructure, provide data and insights to inform policy decisions on transport decarbonisation, and engage stakeholders to raise awareness and build consensus on decarbonisation goals.

3.4: To support Economic Growth

Promote job creation through the development and maintenance of charging infrastructure, partner with businesses to stimulate investment in EV-related industries, support the provision of training for workforce development in the EV sector, and foster innovation and entrepreneurship in the electric vehicle ecosystem.

3.5: To Improve and Make Best Use of Land and Assets Available

Utilise existing infrastructure like parking facilities and transport hubs for charging, identify additional suitable land for charging infrastructure deployment, implement land use policies promoting efficient space allocation for EV charging, and collaborate with property owners and developers to integrate charging solutions into new projects.

4. Policies

The policies below will be implemented to provide clear direction for EV adoption and infrastructure development, ensuring consistency, regulatory compliance, and stakeholder engagement across residents, businesses, and government agencies.

4.1. Policy 1: Strategic charging infrastructure network

The Council aims to secure the creation of an EV charging network which meets the needs of the district's residents, businesses, and visitors, and which accelerates the transition to sustainable transportation.

4.2. Policy 2: Equitable and Accessible Charging

The Council seeks to ensure an equitable provision of EV chargers across West Northamptonshire, meeting the diverse needs of people, including the needs of those with relevant disabilities. Community input and stakeholder collaboration will be integral to our strategy, ensuring an accessible and sustainable EV charging network.

4.3. Policy 3: Residential Charging

The Council will seek to enable the purchase and use of EVs by residents of areas with limited ability for residents to provide their own chargers by providing public charging facilities. The focus will be on delivering large numbers of chargers, so that people have choice and confidence that a charger will be available when they need one.

4.4. Policy 4: Charging Hubs and Super Hubs

WNC will develop a plan for charging hubs and super hubs to accommodate increasing EV adoption and the need for enhanced charging infrastructure. WNC will leverage its car parks but also other land – owned by itself or through working with others – to deliver charging hubs in suitable locations across West Northamptonshire.

4.5. Policy 5: Smart Charging

WNC's goal is to seamlessly integrate EV charging with smart energy systems. This holds the promise of delivering tangible benefits to the grid and users, fostering more efficient and flexible charging practices, where charging can be optimised based on factors such as grid demand, energy prices, and renewable energy availability.

4.6. Policy 6: New Development

The Council will seek to ensure that new developments include sufficient EV chargers to meet the likely demand once the vast majority of vehicles are electrically powered.

4.7. Policy 7: Shared Transport

The Council will support development of electric powered shared transport, such as taxis, buses, and trip-sharing arrangements (it has already taken action to support electric taxis and buses).

4.8. Policy 8: Public Intervention and Value for Money

Public intervention is required to accelerate EV deployment in line with the UK's climate targets and to address areas of market failure such as where public EV chargers are needed, but the market cannot provide them.

4.9. Policy 9: Collaboration and engagement

We recognise, delivery of sufficient EV charging across West Northamptonshire is not something the Council can achieve on its own. It will therefore work with local communities, parish councils, other public bodies, and the private sector to maximise opportunities.

4.10. Policy 10: Leading by Example – EV Adoption in Council Sites and Fleets

The Council will use its role as the operator of significant vehicle fleets to support the transition to electrified fleets, including by the provision of EV charging in its depots and places its staff park (both public car parks and any specific car parks).

5. Electric Vehicle Charger Types

West Northamptonshire Electric Vehicle Infrastructure Strategy (WNEVIS) acknowledges that a range of different charging solutions are required for different charging locations to serve the increasing number of electric vehicle owners. Rapid chargers for locations with a short dwell time, fast chargers for destination and workplace charging, and low powered chargers for home and on-street parking will be needed. The upcoming LEVI project will focus on improving on-street charging across the region (for those without private off-street charging possibilities), and we anticipate this accelerated roll out in low powered chargers will increase the public's transition and confidence to adopting EVs.

There are four types of electric vehicle chargers: standard, fast, rapid, and ultra-rapid chargers, each with different charging times as shown in Table 1 below which can serve to specific needs and demands of EV users.

Table 1: EV ChargePoint Categories and Expected Charging Times

Charge point Power	Time to Charge	Users per day	Coverage Areas	Power (kW)	% Charging
Standard	5.5 to 10 hours	2 to 3	Residential areas, workplaces.	3 to 7 kW	0 to 100%
Fast	1 to 5 hours	3 to 4	On-street locations, businesses.	7 to 22 kW	0 to 80%
Rapid	15 minutes to 1 hour	4 to 5	High-traffic areas, long-distance travel.	50 kW to 150 kW	0 to 80%
Ultra-rapid	10 minutes to 1 hour	5 to 6	Major highways, long-distance travel.	150 to 350 kW	0 to 80%

Source: [Nevis, Chargepoint Power](#)

6. Electric Vehicle (EV) Uptake and Infrastructure Planning

The National EV Insights and Support (NEVIS)¹ service tool is provided by Cenex as a resource for the implementation of electric vehicle infrastructure by councils.

With the proposed prohibition of the sale of new petrol and diesel vehicles in the UK by 2035, and similar policies elsewhere, it is anticipated that the makeup of vehicles on the road in the UK will continue to evolve. This shift will occur as more individuals transition to electric vehicles, and the petrol and diesel vehicles sold new prior to the prohibition reach the end of their life cycle.

In 2024, the NEVIS² tool by Cenex projected 22,054 electric vehicles (EVs) in West Northamptonshire, as detailed in Table 2. Tables 3 and 4 forecast increases in overall vehicle uptake by 2030. Specifically, Table 3 outlines projected figures, including 87,000 battery electric vehicles, 24,990 other EVs, and additional conventional vehicles as per NEVIS³. The tables highlight the significant growth expected in EV adoption within the region over the next decade.

Table 2: Status of Electric Vehicle (EV) Uptake in West Northamptonshire as of 2024

Year	Fuel	Number of vehicles
2024	Battery Electric	16,040
2024	Other EV	6,014

Year	Fuel	Number of vehicles
Total		22,054

Source: [Cenex, Current Projections for West Northamptonshire.](#)

Table 3: Forecasted High Uptake for All Vehicles in West Northamptonshire by 2030

Year	Fuel	Number of vehicles
2030	Battery Electric	87,000
2030	Other EV	24,990
2030	Petrol	82,064
2030	Diesel	80,300
2030	Other ICE	3,595
Total		277, 949

Source: [Cenex, Future Projections for West Northamptonshire.](#)

Table 4: Forecasted High Electric Vehicle (EV) uptake in the West Northamptonshire as of 2030.

Year	Fuel	Number of vehicles
2030	Battery Electric	87,000
2030	Other EV	24,990
Total		111,990

Source: [Cenex, Future Projections for West Northamptonshire.](#)

Table 5 outlines the availability of EV charging infrastructure in West Northampton as of Quarter 1 of January 2024. According to CENEX data, there were 238 EV charging sockets installed in the during this year. This indicates the existing infrastructure support for EVs and provides insights into the readiness of the district for accommodating electric vehicle growth.

Table 5: Current Provision of Electric Vehicle (EV) Chargers and Number of Sockets in West Northamptonshire as of Q1, January 1, 2024.

Power	Number of Points
High($\geq 25\text{kW}$)	105
Low($< 25\text{Kw}$)	133
Total	238

Source: [Cenex, Current Projections for West Northamptonshire.](#)

For the purposes of this table, high power chargers are greater than or equal to 25kW and low power chargers are those less than 25kW.

As per Cenex, based on March 2024 projections⁴, the forecasted number and types of chargers to be installed in West Northamptonshire amounts to 3,180 Electric Vehicle (EV) Chargepoint sockets. Table 6 illustrates the number of chargers and their types.

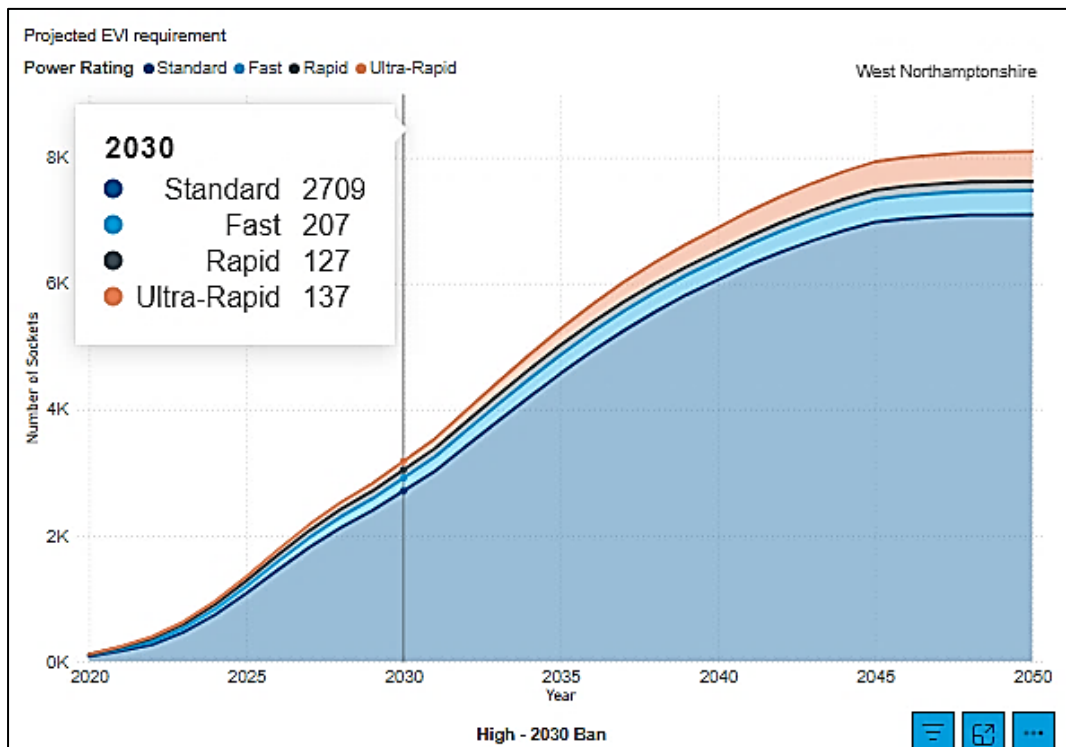
Table 6: Number of Electric Vehicle (EV) Charger Sockets Required by 2030 in West Northamptonshire as of March 2024

Year	Power Rating	Number of Sockets as per NEVIS
2030	Standard	2709
2030	Fast	207
2030	Rapid	127
2030	Ultra-Rapid	137
Total		3180

Source: [Cenex, Future Projections for West Northamptonshire.](#)

The above table is visualised below in Figure 2, displaying the projected Electric Vehicle Infrastructure (EVI) requirement for West Northamptonshire by 2030⁵. This projection will help with developing a solution that accommodates the anticipated growth in electric vehicle adoption within the area.

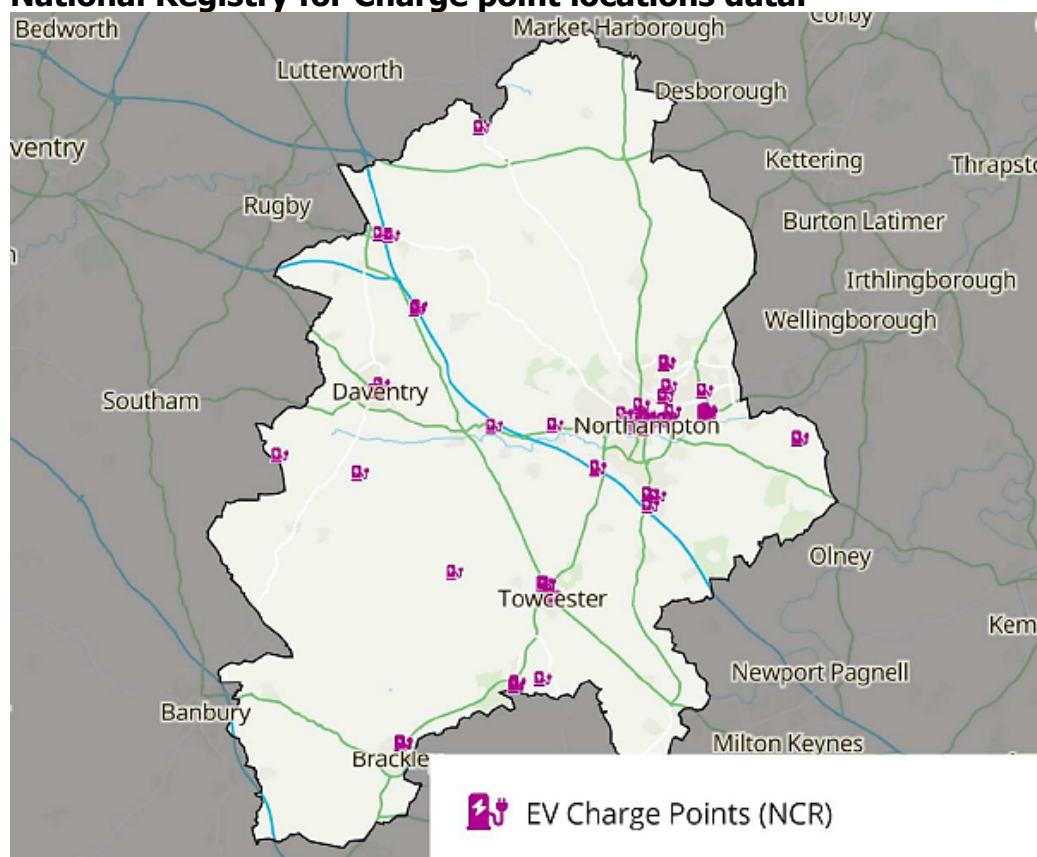
Figure 2: Projected Electric Vehicle infrastructure requirement for West Northamptonshire (2030).



Source: [Cenex, Future Projections for West Northamptonshire.](#)

Figure 3 shows the existing public charge points in West Northamptonshire as of 2024, mapped using Cadence 360 tool⁶ based on National Chargepoint Registry on public electric vehicle Chargepoints in the UK (NCR) data⁷. As it can be deduced from this map, the few existing electric chargers have been installed within the towns with very limited provision in the rural locations.

Figure 3: Existing Charge Points in West Northamptonshire based on National Registry for Charge point locations data.



[Source: National Chargepoint Registry](#)

6.1. EV Infrastructure Site Selection Approach:

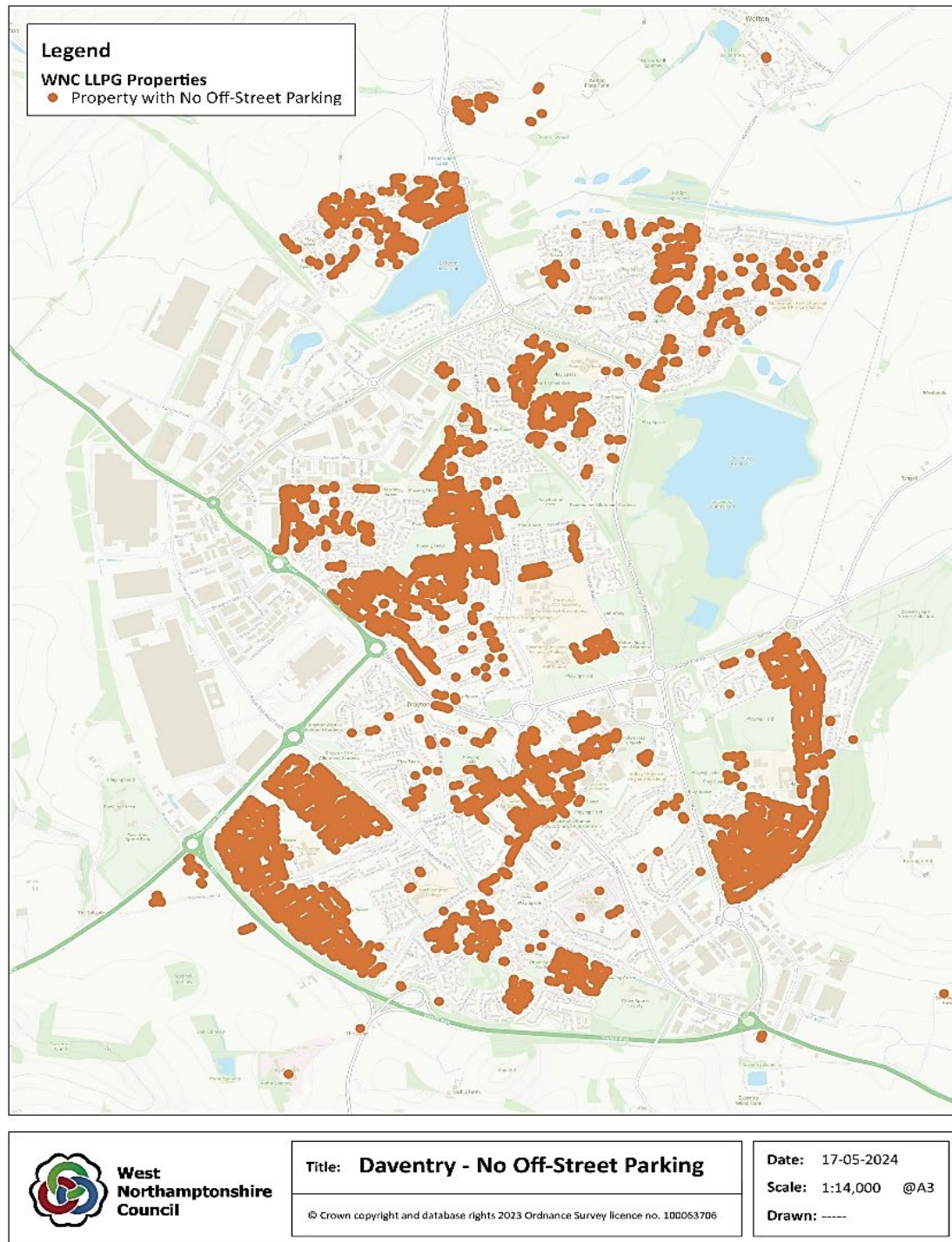
We'll gather data to monitor EV adoption rates, charging point usage, and patterns of use. We'll gather input from residents, businesses, and other stakeholders to identify optimal locations for EV chargers based on local needs. We'll regularly review and update our strategy to keep up with changes in EV use, new technologies, and regulations.

The Council will follow the following approach:

- Choose locations for charging hubs based on factors like population density, traffic flow, accessibility, and availability of electricity supplies at reasonable costs.
- Prioritise areas where EV adoption is high or expected to grow, or where large numbers of EVs are anticipated.
- Assess WNC-owned car parks and land for charging hubs.
- Encourage commercial car park owners and housing stock managers to deploy public EV charging infrastructure in safe, accessible spaces with transparent pricing.
- Align with stakeholders on timing for implementation.
- Promote private sector investment in public charging hubs at widely used private sites like train stations, supermarkets, and other commercial venues.

A map shown in Figure 4 displays the potential on-street charging sites in one of West Northamptonshire regions (Daventry) as of 2024. The future potential sites are represented by orange spots on the map. Actual installations will depend on further site evaluations, assessments of electrical capacity, and market interest, which may vary depending on the procurement route.

Figure 4 below displays the potential on-street charging sites in one of West Northamptonshire regions (Daventry) as of 2024.



Source: © Crown copyright and database rights 2024 Ordnance Survey licence no. 100063706

7. Strategic Delivery

Our delivery model takes into consideration that:

- WNC will prioritise the necessity of EV charging infrastructure particularly in residential areas without off-street parking.
- The strategy will leverage grant funding, notably the LEVI capital allocation, and utilise council assets to advance EV charging infrastructure.
- Procurement will involve selecting top Chargepoint operators (CPO) to install and manage chargers, leveraging their expertise and economies of scale.
- The Council is exploring partnership and joint venture models for EV charging infrastructure procurement, favouring a concession contract to mitigate technical and commercial risks while leveraging its assets and grants. A structured concession contract model is preferred to ensure transparency and value for money, balancing the interests of the Council, operator, and users.
- Using established procurement frameworks like VCIS (Vehicle Charging Infrastructure Solutions) will streamline processes and ensure compliance.
- Early engagement with suppliers through soft market testing will gather insights and foster innovation in cost-effective charging solutions.
- Ongoing monitoring and reporting will track infrastructure effectiveness and adapt strategies based on evolving EV trends and regulatory developments.

8. Engaging with Communities

WNC will engage residents, businesses, and stakeholders through consultation and feedback mechanisms to ensure alignment with community needs and priorities for EV charging infrastructure. Community engagement will increase transparency, offering opportunities for feedback on preferred charging site locations through initiatives such as the "Register your interest in on-street electric vehicle charging site" on the WNC website to measure the local demand and to expand EV infrastructure across West Northamptonshire.

9. Performance indicators

The performance measures set out in Table 5 will be used to judge progress of the strategy.

Table 5: Performance indicators

Measure	Purpose	Target
Number of EVs Registered	Track the growth in EV registrations, aiming to provide charging infrastructure ahead of projections and demand.	We will meet the demand for 40% of all new vehicle registrations being fully electric or hybrid in 2030. (111,990 out of 277, 949, please see Table 3)
Number of EV Charge points per 100,000 Population	Enhance accessibility by increasing the ratio of EV charge points to population.	Achieve a minimum of 50 EV charge points per 100,000 population by 2030.

Measure	Purpose	Target
Number of EVs Registered per EV Charge point	Ensure improved accessibility by reducing the number of registered EVs per available public EV charge point.	Maintain a ratio of fewer than 30 registered EVs per charge point by 2030
Number of Fast EV Charge points	Increase the number of fast EV charge points available to the public, aligning with the forecasted growth in EV uptake	Achieve a ratio of 1 fast charger per 20 registered EVs by 2030.
Number of Rapid EV Charge points	Expand the availability of rapid EV charge points, focusing on strategic road networks and key transit points.	Achieve a ratio of 1 rapid charger per 50 registered EVs by 2030.

10. Conclusion

Securing widespread EV charging infrastructure is crucial for West Northamptonshire's goal of reaching net zero emissions by 2045 and improving air quality. This strategy supports regional, national, and global environmental efforts by outlining policies to promote EV adoption through strategic infrastructure deployment, collaboration, supportive policies, and public engagement.

11. Glossary

Note on language:

In English, “charge” has different meanings relevant to this document:

- Verb: To make someone pay money for something.
- Verb: To put electric current into a battery to increase the amount of electrical energy it is storing. Typically, this is measured in kilowatts (kW).
- Noun: The amount of electrical energy stored in a battery. Typically, this is measured in kilowatt hours (kWh).

11.1 Appendix A

Term	Definition
Charge point operators (CPOs)	The entity responsible for the operation and management of charging stations, including maintenance, billing, and customer support.
Charge point	A specific outlet or socket within a charging station where an electric vehicle can be connected for charging.
Charging power	The amount of electrical power delivered to an electric vehicle during the charging process, measured in kilowatts (kW).
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 vehicle (EV)	A vehicle that is powered by an electric motor and relies on electricity stored in batteries for propulsion.
Fast charging	Charging at a rate of between 8 and 50 kW per hour.
Kilowatt-Hour (kWh)	A unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour.
Net zero	Achieving a balance between greenhouse gas emissions produced and removed from the atmosphere.
Smart charging	A strategy that utilises advanced technologies to optimise charging efficiency, load management, and grid integration.
Ultra-rapid charging	Charging that takes place at 150kW and over.

Term	Definition
VCIS	Vehicle Charging Infrastructure Solutions. It refers to a framework or initiative aimed at developing and managing infrastructure for charging electric vehicles.

11.2 Appendix B: References

¹ Cenex. (n.d.). Home - National EV Insight & Support. Retrieved from [Home - National EV Insight & Support | Delivered by Cenex](#)

² Cenex. (n.d.). Current Status Report - National EV Insight & Support. Retrieved from [Current Status Report - National EV Insight & Support | Delivered by Cenex](#)

³ Cenex. (n.d.). Future Projections Report - National EV Insight & Support. Retrieved from [Future Projections Report - National EV Insight & Support | Delivered by Cenex](#)

⁴ Cenex. (n.d.). Future Projections Report - National EV Insight & Support. Retrieved from [Future Projections Report - National EV Insight & Support | Delivered by Cenex](#)

⁵ Cenex. (n.d.). Future Projections Report - National EV Insight & Support. Retrieved from [Future Projections Report - National EV Insight & Support | Delivered by Cenex](#)

⁶ City Science. (n.d.). Networks - Northamptonshire - Cadence 360. Retrieved from [Networks - Northamptonshire - Cadence 360 \(cityscience.com\)](#)

⁷ Department for Transport. (n.d.). NCR - National Chargepoint Registry. Retrieved from [NCR - National Chargepoint Registry \(dft.gov.uk\)](#)