CABINET

DATE	13th March 2024
REPORT OF	Councillor Stewart Swinburn – Portfolio Holder for Environment and Transport
RESPONSIBLE OFFICER	Carolina Borgstrom – Director of Economy, Environment and Infrastructure
SUBJECT	North East Lincolnshire Electric Vehicle (EV) Strategy
STATUS	Open
FORWARD PLAN REF NO.	CB 03/24/04

CONTRIBUTION TO OUR AIMS

The North East Lincolnshire EV Strategy is expected to contribute towards key Council priorities by enabling 'Stronger Economy and Stronger Communities'. The EV Strategy also supports the Council vision for a green future and will have a significant contribution towards net zero targets.

EXECUTIVE SUMMARY

This report presents a draft version of the North East Lincolnshire EV Strategy (in Appendix 1). The EV Strategy provides a vision for the roll-out of electric vehicle (EV) charging infrastructure to 2030 drawing on insights about current provision, socio-demographics and future forecasts.

RECOMMENDATIONS

It is recommended that Cabinet:

1. Adopts the draft EV Strategy and approves its publication on the Council's website.

2. Delegates authority to the Director of Economy, Environment and Infrastructure, in consultation with the Portfolio Holder for Environment and Transport, to:

- apply for and accept external grant funding that enables the delivery of the EV Strategy.
- procure measures to allow for the delivery of projects identified in the EV Strategy.
- award contracts for measures within the allocated budgets for the project and to carry out all activity to mobilise and fully implement.

3. Authorises the Assistant Director Law and Governance (Monitoring Officer) to execute all documents in connection with the above.

REASONS FOR DECISION

The Governments Zero Emission Vehicle (ZEV) mandate requires a ban on the sale of new petrol/diesel cars and vans by 2035. This directly contributes to the UK's Transport Decarbonisation Plan (TDP) and wider Net Zero Carbon Strategy.

To support this the North East Lincolnshire EV Strategy seeks to address barriers to EV adoption by undertaking a programme of initiatives identified in the EV Strategy including increasing the number of publicly available EV chargepoints across the network.

1. BACKGROUND AND ISSUES

1.1 2023 year to date data for UK new car registrations indicates 55% of all cars registered were either hybrid or fully electric. This is up 4% from the previous year and it is anticipated this trend will continue as the ban on new petrol/diesel cars in 2035 approaches. In 2022, the total number of licensed EVs in North East Lincolnshire was 900, a 50% increase from the previous year and more than a three-fold increase from 2020.

1.2 In NEL there are currently approximately 40 publicly available EV chargepoints. However, Transport for the North's EV forecasting tool indicates that closer to 800 chargepoints are potentially required in NEL by 2030 to keep up with anticipated demand.

1.3 To develop a robust plan for how the Council is going to work alongside private industry and local residents to support the EV transition it has developed the first local EV Strategy. Whilst the Council currently do not have any statutory duties associated with EV roll-out (including chargepoints) there is clearly a role for the public sector to play alongside private sector partners to ensure that EV chargepoint rollout is successful. In addition, Department for Transport EV capital funding is being channelled through Councils to support the delivery of EV chargepoints.

1.4 The Council's EV Strategy has been developed along four main principles;

- Mode shift: To support decarbonisation goals and projects that encourage greater use of active and sustainable modes of travel.
- Accessibility: To ensure the approach to EV infrastructure roll out is accessible to all.
- Inclusion: To develop an approach to EV and EV infrastructure roll out that is inclusive to all regardless of income, ethnicity, gender etc. This includes supporting the equitable provision of EV infrastructure across the borough.
- Future proofing: To consider new and emerging technology as part of future programmes.

1.5 Delivery of programmes identified in the EV Strategy support the Council's Local Plan and Local Transport Plan as well as the Carbon Roadmap which includes specific workstreams around low carbon transport and developing climate conscious communities.

1.6 The EV Strategy contains a series of 11 initial key recommendations:

- Delivery of 500 standard chargepoints by 2026, and a total of 800 by 2030.
- Delivery of 10 rapid chargepoints by 2026 and 25 by 2030.
- Explore the feasibility of delivering chargepoints across the Council's car park estate, aiming to deliver charging hubs at five key strategic sites by

2026, and ten by 2030.
- Work with a wide range of Charge Point Operators (CPOs) to evaluate options for charging prices.
- Install at least 6 chargepoints in each of the Borough's 15 wards by 2025.
- Engage with car club and other car share operators to explore the feasibility of supporting the rollout of these schemes across the Borough.
- Embed chargepoint delivery into the planning approval process.
- As part of the Grimsby and Cleethorpes masterplans, actively pursue and encourage standard and rapid chargepoint delivery into scheme design, including the potential for mobility hubs.
- Engagement with Northern Powergrid as early as possible once potential EV infrastructure projects are identified.
- To support accessibility to disabled users the Council should utilise OZEV's accessibility specifications, when outlining their chargepoint requirements.
- Add additional functionality to the Council's existing disabled bay application form, enabling residents to simultaneously request an EV chargepoint.

1.7 Between them, the recommendations outlined above provide a mix of short- and longer-term targets for EV chargepoint delivery as well as practical steps to make it easier for our local residents to accelerate the switch to EV.

2. RISKS AND OPPORTUNITIES

2.1 The main risks associated with the EV Strategy are likely to relate to factors outside of the control of the Council. For example the price and availability of new and second-hand vehicles will, to a great extent, determine how much demand there is for public EV charging infrastructure and factors such as fluctuations in energy prices will determine how attractive it is for local residents to trade in their petrol / diesel vehicles for an electric or hybrid version. These external risks are fundamental to whether projects to support the rollout of EV in North East Lincolnshire are a success or not.

2.2 Of those risks that there is some control over, the main ones are;

- Ensuring that there is appropriate governance in place to ensure that the Council secures sufficient private sector investment to make projects cost neutral to the Council, failure to do so could leave the Council needing to find their own funding to deliver schemes.
- Ensuring that there are appropriate processes in place to manage the ongoing delivery and maintenance of EV charging infrastructure, again the key risk in not being able to deliver this is increased ongoing costs to maintain and operate an asset.

2.3 The key opportunities associated with the decision to adopt the EV Strategy are that it strengthens the case when seeking future external funding and it provides the necessary framework through which projects to tackle carbon and other environmental impacts can be delivered.

2.4 The successful delivery of a network of EV chargepoints will also bring with it financial opportunities for the Council to benefit by increasing income either as part of the consortium delivering EV infrastructure or as the landlord for sites

from which private operators deliver EV charging facilities. The Council's role and hence subsequent financial benefit will be determined at a later date as individual projects are developed.

3. OTHER OPTIONS CONSIDERED

The only other option considered was to not develop an EV Strategy and this is not recommended. The Government strongly encourages local authorities to produce a Strategy and having a robust strategy is a requirement to access future DFT capital funding. The adoption of the strategy will also provide the blueprint by which the Council will take future projects forward and having a strategy is considered good practice.

4. REPUTATION AND COMMUNICATIONS CONSIDERATIONS

There are potential positive reputational implications for the Council resulting from the EV Strategy as EVs are generally recognised as being a positive part of the local transport mix. An action plan will be agreed with the Council's Communications team to promote and encourage EV as well as to myth bust some of the more common misconceptions about EV ownership and particularly EV charging. For some people EV charging may have negative consequences, and we will be prepared for these reactions and explain how we will take those into account in any activities that we undertake.

5. FINANCIAL CONSIDERATIONS

The EV Strategy does not make any firm proposals for major projects and so no detailed financial considerations can be made at this point. There are external grant funds available for installing EV chargepoints, and having this Strategy will prove positive in any bids that we make. External funding applications will be progressed to ensure that the delivery of measures set out in the EV Strategy will be at minimal cost to the Council whilst maximising the funding being levered into the local area from the private sector.

6. CHILDREN AND YOUNG PEOPLE IMPLICATIONS

There will be no specific impacts for children and young people resulting from this report.

7. CLIMATE CHANGE AND ENVIRONMENTAL IMPLICATIONS

Supports both National and Local strategies, targets, and measures for cutting carbon from transport. In addition, air quality improvements from a reduction in nitrogen dioxide and particulates.

8. CONSULTATION WITH SCRUTINY

There has been no formal consultation with Scrutiny regarding this report, there is however a workshop planned for 18 March with all Members invited where the draft strategy and a wider explanation regrading EV in NEL will be presented.

9. FINANCIAL IMPLICATIONS

9.1. Based upon the recommendations with the report, the net cost to the Council is expected to be minimal. As stated above, external funding opportunities will be progressed which will minimise the direct financial cost to the Council.

10. LEGAL IMPLICATIONS

10.1. As the report states, the Council is under no statutory duty to produce such a strategy although one can see the clear benefits for Place.

10.2. The Portfolio Holder for Environment and Transport retains the constitutional authority to make any future amends or modifications to the strategy from time to time..

11. HUMAN RESOURCES IMPLICATIONS

11.1. There are no direct HR implications as a result of the strategy being adopted.

12. WARD IMPLICATIONS

12.1. The EV Strategy has the potential to affect all Wards.

13. BACKGROUND PAPERS

Taking Charge: the national electric vehicle infrastructure strategy

https://assets.publishing.service.gov.uk/media/6245ba40e90e075f15381cf0/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf

Decarbonising Transport – A Better Greener Britain: the national transport decarbonisation plan

https://assets.publishing.service.gov.uk/media/610d63ffe90e0706d92fa282/decarbonising-transport-a-better-greener-britain.pdf

Net Zero Carbon Roadmap – The Councils plan for carbon reduction

https://www.nelincs.gov.uk/assets/uploads/2022/02/Carbon-Roadmap.pdf

14. CONTACT OFFICER(S)

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COUNCILLOR STEWART SWINBURN
PORTFOLIO HOLDER FOR ENVIRONMENT AND TRANSPORT

North East Lincolnshire Borough Council
Electric Vehicle Charging Strategy
Final Report

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1 Executive Summary

1.1 Overview & Approach

North East Lincolnshire Council (the Council) commissioned City Science to provide a central strategic vision for the roll-out of electric vehicle (EV) chargepoints from present day (2023) to 2025 and 2030. The purpose of the EV Charging Strategy is to forecast the anticipated range, location and timescales for public charging infrastructure requirements to support the needs of cars, vans and motorcycles. The EV Charging Strategy will align with the broader policy landscape through building on the existing Ultra Low Emission Vehicle Strategy (2021), utilising the Transport for the North's (TfNs) tool to develop the EV forecasts and through a policy and strategy review.

To develop an evidence-led and locally informed Strategy, we have drawn on insights about current infrastructure provision, broader socio-demographic factors, and forecasted future chargepoint needs. We have also engaged closely with the project team responsible for this Strategy, and external stakeholders (e.g. fleet operators and chargepoint operators (CPOs)) via 1-1 interviews to gain insights (e.g. into user needs and best practice).

1.2 Key Findings

- Standard Chargepoints: The Borough currently hosts 30 standard chargepoints, however 250 are forecasted to be required by 2025, rising to 681 in 2030. This highlights a significant gap between current chargepoint provision and anticipated need.
- Rapid Chargepoints: The Borough currently has 7 rapid chargepoints, however the forecasting indicates that 114 are required by 2030 indicating the necessity to accelerate the delivery of rapid infrastructure which is essential for fleet users (e.g. taxis,) and the Boroughs significant volume of day visitors to ensure that a lack of chargepoints does not impact the tourist economy.
- Varied Deployment Approach: In its built-up areas the Borough has high levels of deprivation and low car ownership, whilst in rural areas there are higher levels of car ownership and a greater proportion of homeowners, EV charging needs will therefore differ across the Borough.
- Funding Models: We propose that the Council harness match-funding (from government and CPOs) for standard chargepoints, with an option to also trial a Borough contribution to evaluate the income potential from different models. For rapids fully-funded options are proposed.
- Delivery Opportunities: The Council is well-positioned to support the delivery of equitable chargepoint provision across the Borough through council-owned assets such as car parks, future development sites and on-street parking.
- Energy Analysis: The Council is well placed to deal with the extra energy demand from EVs, with forecasts indicating that only three of the sixteen primary substations would require upgrades by 2030.

1.3 Recommendations

Informed by the results of the data analysis and stakeholder engagement process, we have developed 11 key recommendations that support the delivery of EV chargepoints across the Borough. These include suggestions on delivery opportunities on council-owned assets, providing a good spatial spread of chargepoints to support equity, and specific chargepoint delivery targets to ensure that the Borough is prepared for the EV transition.

1.4 Next Steps

The Council plan to begin consultation on the EV Charging Strategy in September 2023. Once approved they will consider developing an Action Plan to clearly outline their confirmed commitments and priorities for supporting the acceleration of EV uptake in the Borough.

2 Introduction

2.1 Strategy Background, Purpose & Objectives

City Science has been commissioned by the Council to produce a central strategic vision for the roll out of EV chargepoints over the next two years to 2025, whilst also indicatively looking ahead to 2030 and the phasing out of petrol and diesel cars and light good vehicles. The purpose of our Strategy is to forecast the anticipated range, location and timescales for public charging infrastructure requirements to support the needs of cars, vans and motorcycles for residents, visitors and fleet operators. It will also outline the various mechanisms available for funding and delivery.

The Strategy's six key objectives are:

1. Provide an outward facing, accessible EV Infrastructure Strategy
2. Develop a central strategic vision for EV infrastructure roll out from 2023-2025 and an e outlook to 2030
3. Provide the range, locations & timescales for EV roll out
4. Identify funding and delivery mechanisms for EV infrastructure
5. Maximise use of council assets to support EV infrastructure delivery
6. Develop short term actions and commitments

This report consolidates the findings from three detailed technical reports (our Baseline Report, Data Analysis & Forecasting Report and Infrastructure Delivery Report) and provides a final set of 11 recommendations to support a central strategic vision for EV roll out across the Borough.

2.2 Strategy Principles & Chargepoint Definitions

Through collaboration with the Council, we have identified four core principles which will ensure that the EV Charging Strategy aligns with and supports the Council's broader vision and goals. The EV Charging Strategy principles are as follows:

Mode Shift

To support their decarbonisation goals the Council remain committed to supporting projects that reduce car ownership and encourage greater use of active and sustainable modes of travel

Accessibility

To ensure the approach to EV infrastructure roll out is accessible to all. This includes ensuring that infrastructure does not impede access or use of the footway (e.g. to wheelchair or pushchair users)

Inclusion

To develop an approach to EV and EV infrastructure roll out that is inclusive to all regardless of income, ethnicity, gender etc. This includes supporting the equitable provision of EV infrastructure across the Borough.

Future Proofing

To consider new and emerging technology as we develop the Strategy, as EV and EV infrastructure technology continues to rapidly evolve, alongside the broader energy system technology landscape (e.g. vehicle to grid technology).

2.2.1 Chargepoint Definitions

The definition of standard and rapid chargepoints used within this Strategy are below:

- Standard: Refer to Slow (3.7kW), Standard (7.4kW) and Fast (11 - 22kw) chargepoints
- Rapid: Refer to Rapid (20 – 43kw) to Ultra-Rapid (up to 350kW) chargepoints

3 Current Situation

Chapter at a Glance

This Chapter draws on the findings of our **Baseline Report.** It provides an overview of the current policy landscape, existing chargepoint provision and broader context.

3.1 Policy & Strategy Landscape

To ensure this Strategy aligns with the latest policy landscape, we reviewed a range of policies, strategies and documents. The review highlights that at a national, regional and local level there is a clear policy framework to a net zero future, with an emphasis on accelerating the transition to EVs.

- **National:** The government are providing a range of tools and funding to support local authorities to plan and deliver local public charging infrastructure.
- **Regional:** At a regional level, this Strategy will build on previous studies including work by WSP to identify measures that councils across Lincolnshire can take to overcome barriers to chargepoint roll out.
- **Local:** Locally, the Council has demonstrated significant appetite for carbon reduction both within the Council's own estate and across the wider Borough, and there is provision within the Local Plan for increased infrastructure roll out.

3.2 Existing Chargepoint Provision

3.2.1 Approach

We analysed current chargepoint provision using a range of publicly available data gathered including from ZapMap, and CPOs (e.g. Pod Point and BP Pulse).

3.2.2 Chargepoint Locations & Infrastructure Type

There are 39 publicly available EV chargepoints in the Borough. Figure 3-1 maps their locations, the point size and label reflect the number of charging devices at a site. Grimsby and Cleethorpes have the highest density of chargepoints, whilst there are gaps in provision in rural areas to the north and southwest of the Borough. Four of the chargepoints are located within Council owned car parks, two at St. Peters Avenue Car Park in Cleethorpes and two at Cartergate Car Park in Grimsby. Most of the Borough's chargepoints are located in off-street car parks at (i.e. at hotels, shopping centres and large supermarket). There is a lack of publicly available chargepoints located in residential areas.

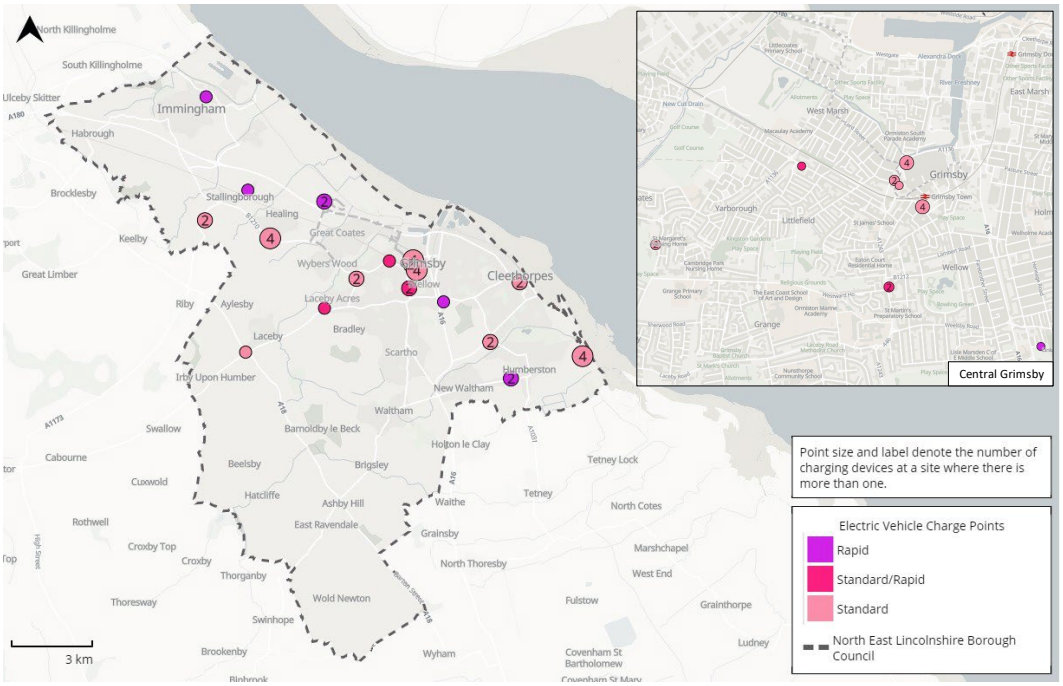

Figure 3-1: Locations of EV Chargepoints in the Borough (ZapMap, 2023; Pod Point, 2023; North East Lincolnshire , 2023). Note map correct as of August 2023

Standard chargepoints dominate provision, accounting for almost 75% of infrastructure. The remaining chargepoints include seven rapid chargers and four that can operate across both charging

speeds (depending on the plug type used). Pod Point operates almost a third of the Boroughs chargepoints.

3.2.3 Broader Context

The Borough contains a mix of built-up and rural areas. Within the centres of Grimsby, Cleethorpes and Immingham, there are high population densities, high levels of deprivation and low levels of car ownership. In contrast, the rural areas of the Borough, particularly to the west and south, have much lower population densities, low deprivation and high car ownership. EV charging needs are likely to differ between these areas.

Based on accommodation type data for the Borough (see Figure 3-2), it is estimated that around 50% of households have access to private off-street parking. We anticipate that the remaining 50% are likely to rely on publicly available chargepoints. The more densely populated areas including Grimsby, Cleethorpes and Immingham have the Boroughs highest reliance on On-street parking.

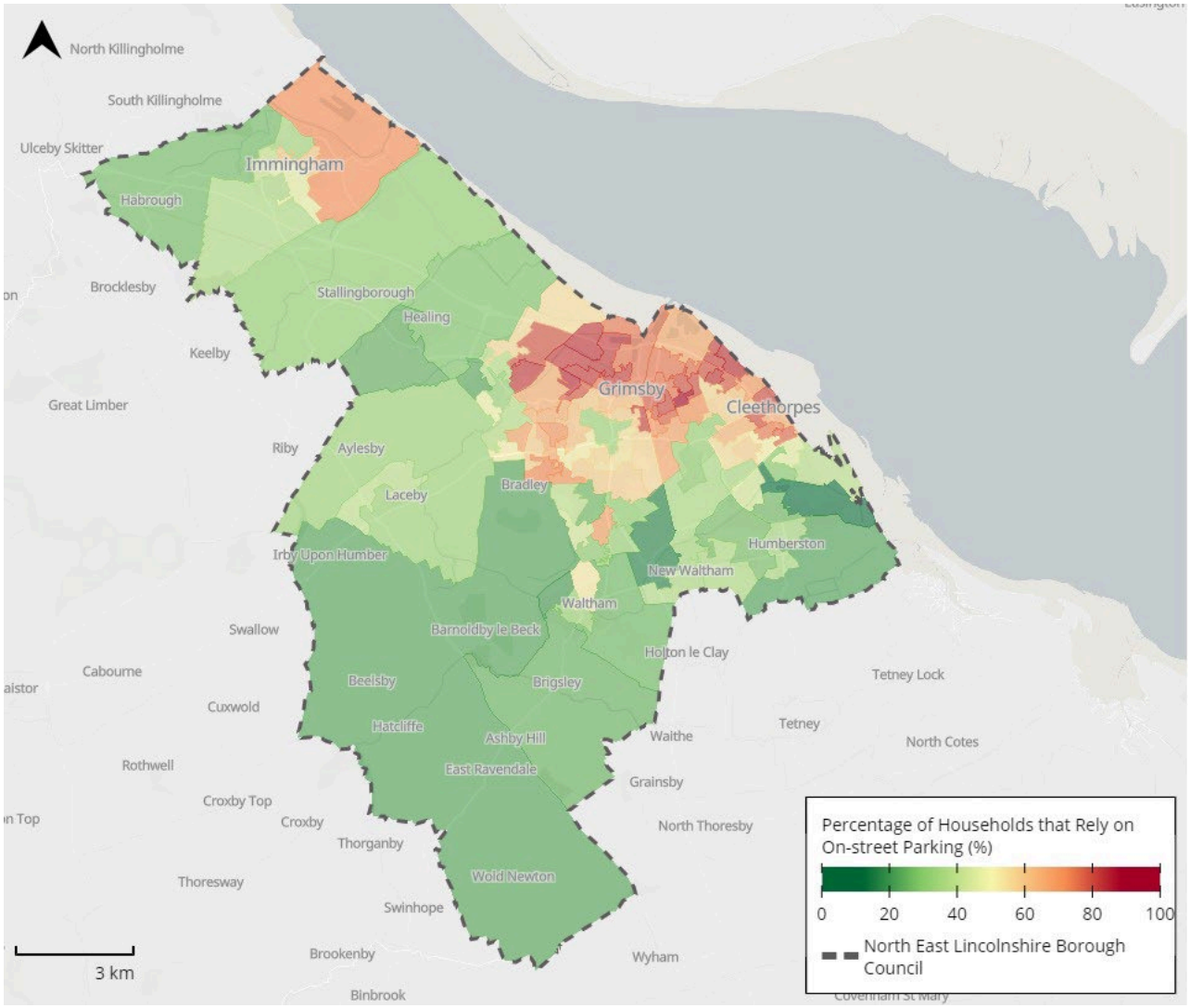

Figure 3-2: Proportion of Households the Rely on On-street Parking (Office for National Statistics, 2023)

Recommendation

On-street Chargepoint allocation: We propose that the Borough's high-density areas (e.g. Cleethorpes, Grimsby and Immingham) are allocated a significant proportion of the Boroughs charging infrastructure. Given the need for a good spatial spread of infrastructure across the Borough, we also propose that the Council commit to delivering 6 chargepoints in each of the Boroughs 15 wards by 2025 to support equitable access.

20% of the population of the Borough reported in the 2021 Census that they have a disability that impacts their day-to-day activities. This is slightly higher than the overall statistic for England and Wales of 18% (Office for National Statistics, 2023).

Recommendation

Accessibility: To support accessibility (e.g. for disabled users) we propose that the Council utilise the Governments accessibility specifications, (as outlined in The PAS EV – Accessible charging – Specification) when outlining chargepoint requirements. We also propose that the Council's existing disabled bay application form is developed to provide residents with an additional option to request an EV chargepoint.

Supporting mode shift away from private vehicles is a key principle of this Strategy, that emphasises the role of public transport across the Borough. Through the Enhanced Bus Quality Partnership, the Council and Stagecoach East Midlands will work in partnership to contribute to the Humber Vision for Decarbonisation. The partnership aims to improve the quality of bus services, grow bus patronage, achieve modal shift, improve air quality, reduce congestion and promote accessibility. The Council and Stagecoach East Midlands are also committed to working in partnership to seek external funding in order to deliver a network of Electric Buses across the Borough. However, we acknowledge the lack of bus routes and railway lines in the west and south of the borough, indicates that residents in these areas are likely to rely more heavily on EVs to decarbonise than on public transport. Car clubs and car share schemes could also play an important role across the Borough – both in the built-up and more rural areas.

Recommendation

Car Share Schemes: We recommend that the Council engage with car club operators and other car share schemes to explore the feasibility of supporting the introduction of car share schemes across the Borough.

4 Future Chargepoint Demand

Chapter at a Glance

This Chapter summarises the key findings from our **Data Analysis & Forecasting Report** outlining the number of chargepoints anticipated for 2025 and 2030.

4.1 Approach

To forecast the anticipated number of chargepoints required for 2025 and 2030, and to support consistent forecasting across the region, we used TfN's EV Charging Infrastructure (EVCI) Visualiser Tool which makes predictions of future number of EVs and chargepoints using current vehicle fleet and EV sales predictions.

4.2 Anticipated Chargepoint Needs

Table 4-1 shows how the current chargepoint provision compares with forecasted need for 2023 (present day), 2025 and 2030 by infrastructure type. The forecasts highlight that a significant scale up in delivery is required. For instance, at present there are 37 public chargepoints in the Borough however, in 2025, the forecasting anticipates 364 public chargepoints will be required. Forecasting indicates that:

- **Standard:** 250 standard chargepoints are required in 2025, increasing to 681 in 2030.
- **Rapid:** 114 rapid chargepoints are required by 2025/30. (Note the tool used is currently unable to differentiate rapid needs between 2025/30).

The forecasts demonstrate a significant need to focus on the roll out of publicly accessible chargepoints, particularly standard on-street charging solutions near homes. To meet projected demand, a nearly ten-fold increase from present delivery to 2025, and a more than 20-fold increase from present delivery to 2030 is required. The forecasts are based on the assumption that the majority of people without off-street parking will prefer to charge their vehicles overnight, near their homes, whilst there is less dependence on charging at workplaces and other destinations. It should be noted that whilst the Council has an important role in supporting delivery, it will take a wide range of partners and stakeholders to support infrastructure delivery, including CPOs, retailers and car park operators.

Year	Standard Chargepoints	Rapid Chargepoints	Total Chargepoints
2023	30	7	**37**
2025	250	114	**364**
2030	681	114	**795**

Table 4-1: Recommended Future Publicly Accessible EV Infrastructure Provision in 2025 & 2030 Compared to Current Provision (TfN, 2023)

Recommendations

Increasing Provision: Significant and accelerated increase in chargepoint delivery is required in the short- to medium-term. Forecasts indicate that an additional 222 standard chargepoints are required by 2025 and approximately 100 rapid chargepoints by 2030. The Council will work with a range of partners to support delivery including national Government, and CPOs.

5 Chargepoint Delivery

Chapter at a Glance

This Chapter outlines the key findings from our Infrastructure **Delivery Report**, outlining various approaches to fund the delivery of chargepoints.

5.1 Approach

This Strategy has been developed in close collaboration with key stakeholders to ensure it harnesses local knowledge and expertise and aligns with the needs of the Borough. Our approach is summarised below.

- Fortnightly Meetings with the project team
- 1:1s with following: 3 X Chargepoint operators. Fleet operator – Links Taxis. Residents' associations: East Marsh United and Create Streets. Energy Demand – Northern PowerGrid

Producing the following reports:

- Baseline Report
- Data and Forecasting Report
- Infrastructure Deliver/Report

5.2 Opportunities to Fund Chargepoint Delivery

5.2.1 Government Funding

UK Government currently provide two central funding streams for standard chargepoints. These are the On-street Residential Chargepoint Scheme (ORCS) and the Local EV Infrastructure (LEVI) Fund. A forthcoming Rapid Charging Fund (RCF), has also been announced.

5.2.1.1 ORCS

- **Background:** Available to local authorities to part-fund the procurement and installation of chargepoints. £20m of funding has been announced for 2023/24 and is available for lamppost, car parks and street furniture chargepoints.
- **Response:** The Council are currently in discussions with a CPO regarding developing an ORCS funding bid that aims to provide around 60 on-street standard chargepoints throughout the Borough. If the proposal is successful, infrastructure will be rolled out in the first quarter of 2024.

5.2.1.2 LEVI

- **Background**: Supports local authorities in England to plan and deliver chargepoint infrastructure for residents without off-street parking, contributing to the costs of delivery and the employment of new staff through capital and capability funding streams.
- **Response:** The Council has been provisionally allocated up to £1,4M capital and £0.3M capability funding under the LEVI Fund. The Council are waiting on guidance from the fund to inform the allocation of the first-year funds. The outcomes of this Strategy will help inform how the funding is allocated.

5.2.1.3 RCF

A central funding stream for rapid chargepoints is also forthcoming called the RCF, a £950m fund to support future-proofing the electrical capacity at motorway and major A road service areas to prepare the network for the 100% uptake of zero emission vehicles. Applications are not yet live, however the government plans to release further details shortly.

Consideration

Rapid Delivery: There is limited Government funding available to support rapid chargepoint installation, with current schemes focused on supporting increased provision at motorway services.

This highlights the importance of ongoing collaboration with the private sector to increase rapid infrastructure across the Borough.

Recommendations

Standard Chargepoint Delivery: There is a clear opportunity for the Council to continue to pursue ORCS funding, and to utilise the outcomes of this Strategy to help inform how the LEVI funding is allocated. It is worth noting that both schemes are focused on supporting residents without off-street parking, and so can help address the current gap – as there are currently no on-street chargepoints operating in the Borough.

5.2.2 Private Sector Delivery Models

We have identified three key delivery models available to the Council to fund chargepoint delivery.

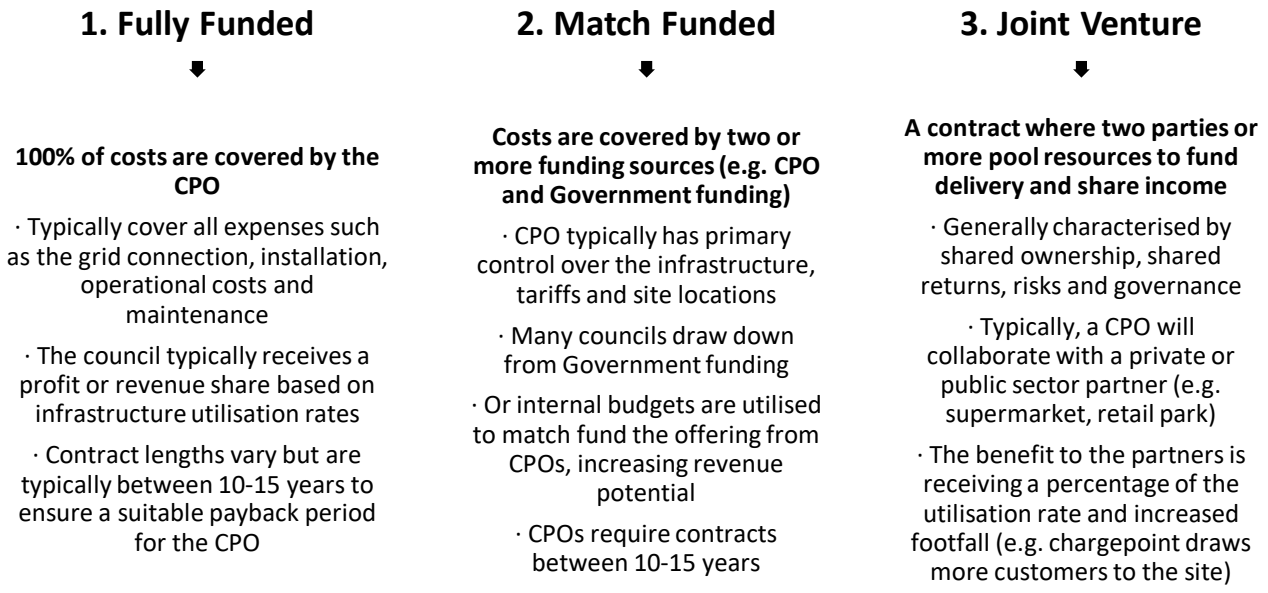

Figure 5-1: Overview of Delivery Models for Chargepoint Delivery (City Science, 2023)

5.3 Income Generation Opportunities

Whilst income from chargepoints is not a key driver for supporting EV infrastructure roll out, it presents an opportunity to the Council to fund sustainability projects (e.g. cycling infrastructure or further EV chargepoints). It is worth noting that income generating potential for standard chargepoints is much lower than for rapid chargepoints. Our engagement with CPOs, identified considerable variation between the income figures provided, highlighting the value in extensive engagement with CPOs to help maximise the benefits to the Council and its residents. Alongside informal engagement, formal tender processes will be required to select preferred CPOs.

5.4 Key Delivery Opportunities

There are a number of ways for the Council to support chargepoint delivery on their land, both to significantly increase standard chargepoint provision across the Borough, and to accelerate the delivery of rapid chargepoints.

5.4.1 On-street Parking:

To date the Council has not delivered on-street charging solutions for residents without access to off-street parking, although we acknowledge that plans are underway (via ORCS funding) to deliver a significant volume of chargepoints over the next year. These on-street chargepoints will be critical

for households that lack off-street parking. Based on the Borough's housing types we have inferred that approximately half of the Borough's resident may have limited access to off-street parking provision, therefore on-street EV chargepoint provision will play an instrumental role in supporting the transition to EVs. The Council already operate an online EV suggestion form where residents can propose chargepoint locations.

We propose that the Council retain this form as it can play an important role in supporting the allocation of ORCS funding for on-street residential chargepoints, and also help inform the roll out of chargepoints in Council owned car parks. Alongside having this demand led process it is also important that future delivery provides a good spatial spread of chargepoints across the Borough, including in the more rural areas to ensure equitable access to all.

5.4.2 Council Owned Car Parks

The Council currently own and operate 31 car parks, providing 3,448 parking bays, and four EV chargepoints are provided across two sites, Catergate and St Peter's Avenue Car Park. Supporting further delivery of infrastructure in Council operated car parks presents a significant opportunity, although we note around half of the parking bays are ear marked for re-development.

Recommendations

Car Parks: The car parks the Council operate presents a significant opportunity to support EV roll out through the provision of overnight charging solutions for residents that lack access to off-street chargepoints. This could also include consideration of Park and Charge solutions like Oxfordshire's where Council owned car parks provide overnight charging solutions for residents that lack off-street solutions.

5.4.3 New Developments

The Borough is benefiting from significant investment, with a range of large developments either proposed or underway. This provides an opportunity for the Council to leverage its planning powers and require chargepoints to be installed at these sites. A key focus should be the Borough's two Levelling up sites of Grimsby and Cleethorpes that have successfully secured £38.4m of funding, (£20m for Grimsby and £18.4m for Cleethorpes £18.4m), with both projects due to be completed by March 2026. These large projects provide an opportunity for the Council to embed EV charging provision into site development.

Recommendations

Council Owned Land: The Council can support the equitable and inclusive provision of EV chargepoints through optimising and targeting delivery on council-owned assets. Many of the Council's car parks are centrally located and therefore provide ideal parking locations (e.g. near to amenities) for disabled residents and visitors.

5.5 Rapid Delivery

Alongside supporting on-street public chargepoints, there is also a need to accelerate the delivery of rapid chargepoints that are essential for fleet users (e.g. taxis, and fleet operators) and the Borough's significant volume of day visitors to ensure that a lack of charging infrastructure does not impact the tourist economy in the short to medium term. Due to the need to scale-up rapid chargepoint provision across the Borough, we have developed seven key delivery principles to support the Council with identifying suitable sites for rapid infrastructure. We do not propose that rapid chargepoints are installed in residential streets as they are likely to attract additional traffic.

Key Principles for Rapid Chargepoint Site Selection

1. Select strategic sites along major roads: Locate on or just off (e.g. on the side roads) of high traffic flow roads.
2. Locate alongside good amenities: Select sites where people will naturally dwell e.g. near supermarkets, coffee shops, cafes so that drivers can utilise amenities whilst their vehicle charges.
3. Cluster chargepoints: Where feasible cluster a number of chargepoints alongside each other to provide assurance to drivers that a charger will be available.
4. Spatial spread: To support equitable access to rapids across the Borough aim for a good spatial spread of infrastructure.
5. Energy characteristics: Substation and grid capacity is a key consideration for rapid chargepoint delivery and will impact the viability of sites due to the cost of upgrades. CPOs will assess the viability of sites and manage the connection process as part of the initial site survey.
6. Minimise pavement impact: To support accessibility of the pavement for pedestrians, where viable rapids should be placed on kerb build outs (Energy Saving Trust, 2019).

Utilise a range of CPOs: A variety of CPOs operating across the Borough provides a range of benefits including a variety of tariffs for users to choose from and allows the Council to monitor both chargepoint reliability and revenue potential over time between CPOs.

Figure 5-4 identifies key strategic roads suitable for delivery of rapid chargepoints. The RCF may be able to support installation of rapids on the sections of the Major Road Network (MRN) that operate in the Borough. There are opportunities for rapid delivery on the Strategic Road Network (SRN), and on the Borough's high flow roads, that include the A46 and the A16. Drawing on experience from previous projects we are aware that both fleet operators, and various rapid CPOs, propose that where feasible chargepoints are delivered in clusters (e.g. clusters of at least 3-4 chargepoints).

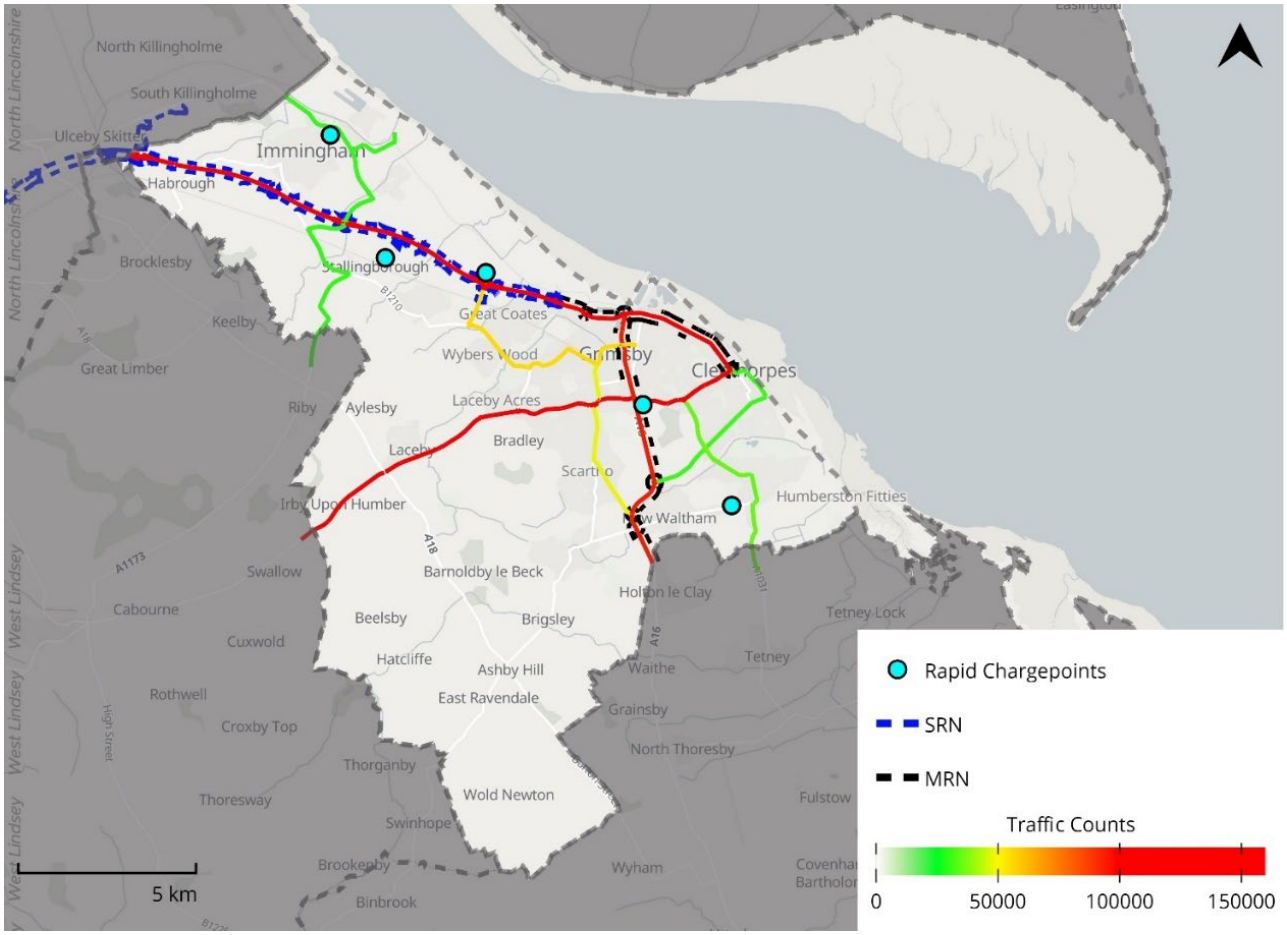

Figure 5-2: Average Daily Vehicular Demand on North East Lincolnshire's Network with Strategic and Major Road Networks Highlighted alongside Existing Rapid Chargepoints (City Science, 2023) (ZapMap, 2023; DfT, 2021)

Recommendations

Rapid Delivery Hubs: There are clear opportunities to accelerate rapid chargepoint provision, both through upcoming new development plans (at Grimsby and Cleethorpes) and along the MRN, SRN and high flow roads that run through the Borough (e.g. the A46 and A16).

5.6 Energy Considerations

5.6.1 Overview

In the UK EV Infrastructure Strategy (DfT, 2022), the Government recognised the EV transition as both an opportunity and a risk to the UK energy system. The transition to EVs shifts demand away from fossil fuels and introduces significant additional demand on the electricity grid. When an EV is charged, it draws electricity from the grid, which can increase demand for electricity, particularly during peak times.

5.6.2 Local Energy Analysis

To assess the impact of EVs on the local energy system we worked with the local distribution network operator, Northern Powergrid to obtain data about existing energy capacity. Northern Powergrid monitor the difference between the annual peak load on a substation and its rated capacity, recording this value as its *headroom*. We have predicted the headroom for the Boroughs substations, once the demand from new EV uptake was added, enabling the Council to understand the scale of electricity grid infrastructure upgrades that may be required.

5.6.3 Findings

Figures 5-5 & 5-6 show the forecast headroom for each primary substation area for 2025 and 2030. The results show the Borough is well placed to deal with the extra demand, when compared to other local authorities. This is, in part, due to quite conservative historic system design by the Northern Powergrid. The 2025 forecast shows that none of the local primary substations would exceed their capacity, while in 2030 three of the sixteen primaries would require upgrading. Primary substation upgrades are costly, however Northern Powergrid is required to pay for these upgrades. Northern Powergrid confirmed that it is their policy to support and pay for upgrades, and that they endeavour to enable connections for all new charging points.

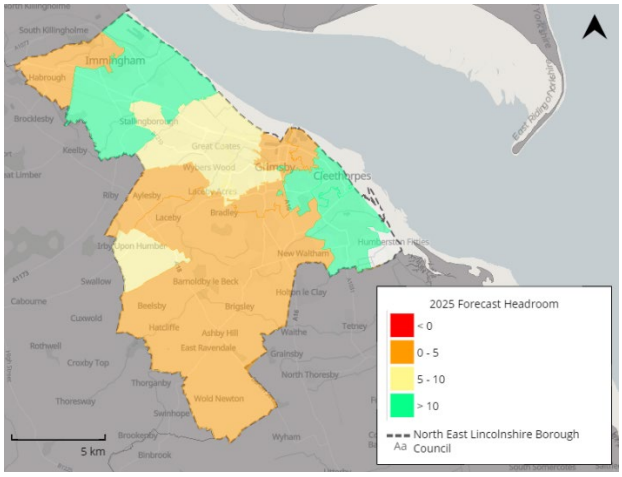

Figure 5-3: Catchment Areas of Primary Substations, Categorised by their Forecast Headroom in 2025 (City Science, 2023).

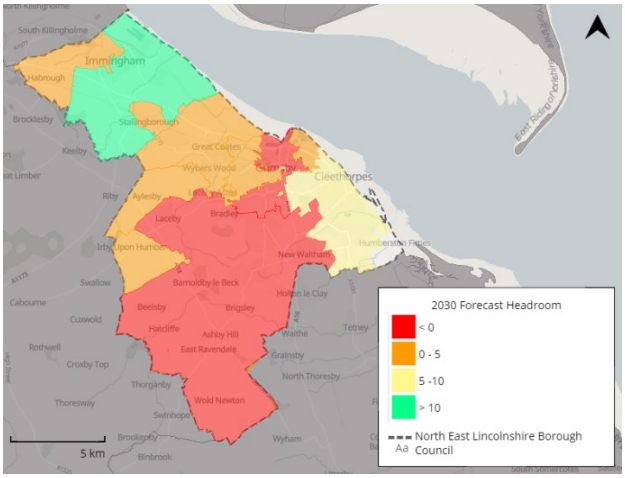

Figure 5-4: Catchment Areas of Primary Substations, Categorised by their Forecast Headroom in 2030 (City Science, 2023).

Whilst EV uptake in the Borough is not anticipated to stress the local distribution network as much as in other areas, it is still vital that the Council engage with Northern Powergrid as early as possible in the planning process and utilise the support and services offered by them as soon after project, programme or strategy inception.

6 Key Findings, Recommendations & Next Steps

Chapter at a Glance

This Chapter consolidates the key findings from each project stage and presents the EV Charging Strategies recommendations.

6.1 Key Findings

6.1.1 Existing Chargepoint Provision

The Borough currently hosts 39 publicly accessible EV chargepoint, 28 standard, seven rapid and four that operate across both charging speeds. Grimsby and Cleethorpes have the highest density of chargepoints, whilst the rural areas in the north and the southwest of the Borough lack provision. Most chargepoints are in off-street car parks at key destinations including hotels, shopping centres and large supermarkets and, as a result, there is a lack of publicly available chargepoints situated in residential areas.

6.1.2 Future Need

Accelerating chargepoint provision should be a key focus for the Council in the short-term with the forecasts anticipating a demand for 364 public chargepoints by 2025 which more than doubles by 2030. A significant increase in both standard and rapid chargepoints are required.

6.1.3 Funding Delivery Models

We recommend that the Council pursue two of the outlined delivery models.

- Match Funding Approach: For the delivery of on-street residential chargepoints we propose the Council continues pursuing the match funding approach currently underway. Matching 50% CPO funding with 50% from central Government, enables the delivery of chargepoints at no cost to the Council whilst generating income via revenue of profit shares from the CPO. However, if the Council also has revenue to invest in chargepoint delivery, they could follow the approach of other Council's that are utilising a combination of government funding, CPO and Council contributions, to evaluate income potential between a few different business models.
- Fully Funded Approach: Government funding is not currently available to the Council for the delivery of rapids. We propose the Council pursue a fully funded model, working with CPOs to extend the coverage of rapid infrastructure across the Borough. Initially, we recommend conducting soft market testing to understand the income potential for various sites, alongside income from chargepoint utilisation. Subsequently, we suggest tendering sites to ensure the best income potential can be secured for the Borough.

6.1.4 Opportunities on Council Owned Land

The key opportunities for delivery on Council owned land are:

- On-Street Standard Chargepoints: We have identified a significant gap between current standard chargepoint provision and anticipated need. The Borough currently has 30 standard chargepoints, however 250 are required by 2025, rising to 681 in 2030. The provisional commitment of over £1.4m of LEVI funding will go some way to begin addressing the gap, supported by any ORCS funding the Council can secure.
- Rapid Chargepoints: There is a need to accelerate the delivery of rapid chargepoints that are essential for fleet users (e.g. taxis, and fleet operators) and the Borough's significant volume of day visitors to ensure that a lack of charging infrastructure does not impact the tourist economy in the short to medium term. At present the Borough only has seven rapid chargepoints, however the forecasting indicates that 114 are required by 2025/2030.
- Council Car Parks: The Council currently operate 31 car parks. Whilst some of these are likely to be redeveloped in the short to medium-term, we have identified 20 car parks that could support standard and/or rapid chargepoints. We propose exploring the feasibility of delivery at these sites is explored.

- **Planning:** The Borough is benefiting from significant investment, with a range of large developments either proposed or underway, including the Grimbsy and Cleethorpes Masterplans that are enabled by Levelling up funding. Embedding chargepoint delivery into these and all planning sites across the Borough should be a priority.

6.2 Recommendations

During development of the Strategy, we identified a number of recommendations that we propose the council consider.

No.	Key Recommendations	Rationale	Action Owner
1.	Commit to delivering 500 standard chargepoints by 2026, and a total of 800 by 2030.	The secured LEVI funding and the ORCS proposal put the Borough in a strong position to deliver 500 chargepoints by 2025. Officers can then capitalise on expertise from the initial roll out to scale up delivery to 800 chargepoints by 2030.	EV Officers, NEL*
2.	Commit to delivering 10 rapid chargepoints by 2026 and 25 by 2030.	Utilising the Grimsby and Cleethorpes Masterplan sites (due for delivery in 2026) the Council can support delivery in the short-term. Officers can then capitalise on expertise from the initial roll out to scale up delivery to 25 rapids by 2030, focusing on the Boroughs high-flow roads including the MRN and SRN.	EV Officers, NEL
3.	Explore the feasibility of delivering chargepoints across the Councils car park estate, aiming to deliver charging hubs at five key strategic sites by 2026, and ten by 2030.	We have identified 20 car parks (providing 2,467 spaces) that present a significant opportunity to support both standard and rapid chargepoint installation. Site feasibility assessments will be required e.g. to assess electrical capabilities at each site.	EV Officers & Parking Managers, NEL
4.	Work with a wide range of CPOs and explore charging prices.	To support choice and reduce costs to the users, we propose that the Council work with a variety of CPOs, providing a range of benefits including a variety of tariffs for users to choose from and allows the Council to monitor both chargepoint reliability and revenue potential over time between CPOs.	EV Officers, NEL
5.	Commit to installing at least 6 chargepoints in each of the Borough's 15 wards by 2025.	A ward commitment will support the equitable provision of chargepoints across the Borough –in both the more densely populated areas (e.g. Grimsby, Cleethorpes and Immingham), alongside the more rural communities located to the south and west of the Borough. The distribution of chargepoints will be continually monitored and evaluated, this will include mapping to help support a good spatial spread of provision across the Borough.	EV Officers, NEL

No.	Key Recommendations	Rationale	Action Owner
6.	Engage with car club and other car share operators to explore the feasibility of supporting the rollout of these schemes across the Borough.	To maximise mode shift potential, Car clubs and car share schemes could also play an important role in both the built-up areas (that are already less car dependent) and more rural areas (where car dependency is much greater).	EV Officers, NEL
7.	Embedding chargepoint delivery into the planning approval process.	The Borough is benefiting from significant investment, with a range of large developments either proposed or underway, including the Grimsby and Cleethorpes Masterplans that are enabled by Levelling up funding. Ensuring that charging requirements are embedded into new developments will support the future proofing of sites, as well as help accelerate chargepoint delivery across the Borough.	Planning Team, NEL
8.	As part of the Grimsby and Cleethorpes Masterplans, actively pursue and encourage standard and rapid chargepoint delivery into scheme design, including the potential for mobility hubs.	Grimsby and Cleethorpes are both key destination sites within the Borough and therefore ideal sites for both standard and rapid chargepoints. The Grimsby site has been identified as having the potential to support a mobility hub, providing rapid chargers, e-scooter parking and a charging depot for electric buses, alongside on-site solar generation via the car park roof. We propose similar opportunities are also pursued at Cleethorpes, a key visitor destination.	EV Officers & Planning Team, NEL
9.	The Council commit to engaging with Northern Powergrid as early as possible, once potential EV infrastructure projects are identified.	Whilst EV uptake in the Borough is not anticipated to stress the local distribution network as much as in other areas, it is still vital that the Council liaise closely with Northern Powergrid to ensure that local energy capacity and constraints considerations are embedded into all EV infrastructure proposals and projects.	EV Officers, NEL
10.	To support accessibility to disabled users the Council should utilise OZEV's accessibility specifications, when outlining their chargepoint requirements.	To support the Strategies accessible principle, and the 20% of the Borough's population of that reported they have a disability that impacts their day-to-day activities.	Procurement Team, NEL
11.	Add additional functionality to the Council's existing disabled bay application form, enabling residents to simultaneously request an EV chargepoint.	To support an inclusive and equitable approach to chargepoint roll out by ensuring that the Strategy is actively responding to the needs of the Borough's disabled residents.	Highway Officers, NEL

Figure 6-1: EV Charging Strategy Recommendations

**North East Lincolnshire Council*

6.3 Next Steps

The Council plan to begin consultation on the EV Charging Strategy in September 2023. Once approved they will consider developing an Action Plan to clearly outline their confirmed commitments and priorities for supporting the acceleration of EV uptake in the Borough.