

North Yorkshire Council

Environment Executive Members

24 January 2025

Consideration of on-street Electric Vehicle Infrastructure Opportunities

Report of the Assistant Director – Highways and Infrastructure

1.0 PURPOSE OF REPORT

- 1.1 To seek permission of the Executive Member for Highways and Transportation in consultation with the Corporate Director – Environment and the Corporate Director Resources to:
- i. Approve public on-street electric vehicle infrastructure – subject to the NYC governance processes.
 - ii. Approve a trial of private household electric vehicle charging in the form of cable mats and gullies (cross-pavement solutions).
 - iii. The trial will lead to a potential review of Council policy, depending on the outcomes.

2.0 SUMMARY

- 2.1 This report provides Members with background and information to support the recommendation to approve the decision to enable Electric Vehicle Charging Points (EVCP's) to be delivered on street, approve a trial of cross-pavement charging solutions and asks Members to note that the trial could lead to a potential change in Council Policy.
- 2.2 Challenges include costs for grid connections and ensuring that public charging is strategically located in areas with limited parking. Risks of not implementing on-street charging include diminished public support leading to local, regional, and national targets for decarbonisation not being realised and a potential breaches of funding agreements for central government grants essential to delivering this infrastructure.
- 2.4 Overall, the report underscores the necessity of enhancing EV charging opportunities for all residents, particularly those without off-street parking, to promote the transition to zero-tailpipe emission vehicles.
- 2.5 The report also explores the opportunities associated with cross-pavement electric vehicle (EV) charging solutions in North Yorkshire, aiming to enable residents without off-street parking to charge without the need for additional public funding. Two solutions are proposed: cable mats and cable gullies. Cable mats are highlighted as a low-cost, temporary option, while cable gullies offer a more permanent but costly solution. Both options aim to make home charging more accessible, reduce public charging dependence, and offer financial savings. The report recommends a trial of both solutions, considering local conditions and feedback from other authorities, like Durham County Council. The trial will help assess their viability in North Yorkshire and inform long-term policy decisions.
- 2.6 The report also proposes a licensing system to recover council costs associated with the trial and future works, such as inspections and pavement resurfacing. It emphasises the importance of engagement and consultation with residents during the trial period to gauge the broader impact on EV uptake and charging infrastructure challenges.

3.0 BACKGROUND

- 3.1 North Yorkshire Council (NYC) aims to develop a public electric vehicle (EV) charging network to support its net-zero emissions goal, as road transport accounted for 44% of the county's carbon emissions in 2019 and 30% in 2022 after a change in the way figures were calculated once they included agricultural emissions. With 25% of households in North Yorkshire lacking off-street parking, there is a need for NYC to deliver accessible charging infrastructure to facilitate the switch from Internal Combustion Engine to Electric Vehicle.
- 3.2 Nationally up to one third of all households have no access to off-street parking. It is estimated that, for North Yorkshire, this figure is 25% of properties in North Yorkshire. According to the 2021 Census there are 256,594 households in North Yorkshire, this equates to between 65,000 homes in North Yorkshire with no access to off-street parking. Consequently, these homes will have greater difficulty accessing the required EV charging infrastructure compared to those households with a driveway. These households are the primary target for the NYC LEVI scheme. It is important to note that the aim is not to provide a charging point for every household in the County, but to provide accessible, equitably distributed charging infrastructure to ensure that all are able to access a public charging point.
- 3.3 Currently, all public charging infrastructure provided by NYC is located off-street in NYC owned car parks. This provision caters for a range of needs but is insufficient to provide the level of charging required to support the transition to electric vehicles and does not allow all residences within North Yorkshire to access the required charging provision due to the relatively low number of suitable car parks for charge point delivery and the location of many of these car parks not appropriate location to support residential charging. The location of NYC car parks does not lend them to being the sole provider of charging infrastructure for North Yorkshire residents.
- 3.4 Further to this there is a notable difference in pricing between being able to charge at home and being dependent on the public charging network. Current prices across most of North Yorkshire are set at 40p/kWh (equivalent of price per litre for petrol or diesel) compared to 7p/kWh for charging at home utilising an off-peak intelligent tariff. Rapid charging infrastructure is significantly more expensive again with prices between 65-89p/kWh.
- 3.5 To enable households to access these cheaper rates, and further encourage the switch to zero tailpipe emission vehicles the Electric Vehicle Infrastructure team is seeking to trial the use of cross-pavement solutions, such as cable mats and cable gullies to examine compatibility with other North Yorkshire Council Highways policies, and whether it can impact on the uptake of electric vehicles.
- 3.6 Officers are seeking approval to install on-street charging infrastructure and trial of cross-pavement solutions, it is recommended that a public consultation takes place to seek feedback on how the trial is going and attitudes and approaches to the wider rollout of this programme. The trial will seek to explore the viability of different solutions, their impact on pavement accessibility and their propensity to encourage the uptake of EVs in households with no off-street parking.

4.0 THE CASE FOR INCREASING ACCESS TO PUBLIC EV CHARGING INFRASTRUCTURE IN NORTH YORKSHIRE

- 4.1 There is a significant need to enhance the availability of electric vehicle charging infrastructure to support households without off-street parking. Current data indicates that the transition to electric vehicles is uneven across North Yorkshire's former districts, with each area at different stages of a forecasted exponential growth pattern in new EV registrations. In Quarter 1 of 2024, 7,320 new EVs were registered, up from 6,793 in

Quarter 4 of 2023, continuing a consistent upward trend since 2011, when only 39 new EVs were registered.

- 4.2 The following table illustrates new EV registrations by district for Q1 2024 compared to previous years, with each quarter in between seeing growth:

Former District	Q1 - 2024	Q1 – 2023	Q1 – 2022
Harrogate	3,276	2,347	1,360
Selby	971	658	407
Hambleton	966	687	408
Craven	591	412	263
Ryedale	548	414	276
Scarborough	594	392	266
Richmondshire	367	276	160

- 4.3 While the data focuses on quarterly new vehicle registrations, the second-hand electric vehicle market has also gained traction over the past year, making EVs more appealing to buyers. As initial lease periods end, a surplus of vehicles has started to create price parity with internal combustion engine (ICE) vehicles, potentially increasing the total number of EVs on the road in North Yorkshire.
- 4.4 Currently, most new EVs are likely to be charged at home where off-street parking is available. However, the EV Infrastructure Team is receiving more inquiries from households without this option, seeking solutions for home charging—either through public charging points or cross-pavement solutions.
- 4.5 The low population density in North Yorkshire complicates public transport availability compared to neighbouring areas. Consequently, residents rely more on private vehicles to access employment, education, and services, leading to higher travel costs. Transitioning from ICE vehicles to EVs could significantly reduce these expenses. Establishing local EV charging infrastructure would enable residents to recharge vehicles conveniently and affordably, addressing the historical challenges of fuel costs and accessibility in more isolated regions.
- 4.6 By facilitating local charging options, whether through public infrastructure or cross-pavement solutions, North Yorkshire can enhance EV adoption and support residents' travel needs throughout the county. However, there are a range of factors to consider before charging infrastructure can be installed.
- 4.7 Grid connection and power availability
- 4.7.1 Prior to 24 November 2023, any public EV charging infrastructure installation was responsible for covering the full costs of grid reinforcement, leading to significant variability in installation costs—ranging from £1,000 to over £20,000 for similar setups.
- 4.7.2 With new regulations, the costs for minor upgrades to the electrical infrastructure have now been socialised, meaning that costs below £380,000 can be shared with the network operator, Northern Powergrid, and developers. However, costs exceeding this threshold remain the responsibility of the developer. North Yorkshire Council has not received any quotes for grid reinforcement that exceed this amount to date.

- 4.7.3 Previously, the high costs associated with installing EV infrastructure in remote areas deterred private investment, as indicated by the low response rates to tender invitations from North Yorkshire's former districts. The updated regulations aim to lower these barriers, making installations in rural communities more financially viable and appealing to investors.
- 4.7.4 It is also important to note that many homes can potentially support EV charging points without necessitating grid upgrades due to their existing power supply diversity. For example, homes with electric power showers can draw more power than a typical domestic EV charger. Furthermore, domestic charging points must load balance their power draw to stay within available supply limits. If other high-demand appliances are in use, the EV charger will reduce its power consumption accordingly. While the installation of EV infrastructure across all homes could necessitate some grid upgrades, the financial responsibility for such upgrades will not fall on North Yorkshire Council.
- 4.8 Location and parking availability:
- 4.8.1 For a residential public charging network to be effective, it should be established in areas with limited or no off-street parking. Properties with off-street parking are less likely to require public charging infrastructure. Understanding the availability of parking in an area is crucial before determining the appropriate charging solutions.
- 4.8.2 North Yorkshire Council serves diverse settlements, with some conducive to on-street charging and others needing additional provisions for installation. A common concern is the lack of guaranteed charging space outside homes; however, the council has no plans to ensure guaranteed access to home-installed charging points with cross-pavement solutions. For residents wanting to install a private charging point with a cross-pavement solution, it is advised that the charging cable crosses the footway at a 90-degree angle with provision for up to a car's length in either direction. This allows charging either directly outside the property or up to one car length away, with the cable running alongside the kerb, clear of the footway.
- 4.8.3 Notably, daily EV charging is typically unnecessary. In 2023, the average UK car was driven 7,000 miles (about 19 miles daily), meaning most EVs can handle longer journeys (200 miles+) with just one weekly charging session. Therefore, it is recommended that public EV charging be strategically located to alleviate concerns around parking constraints and to enhance accessibility. This could include seeking to install charging infrastructure at the gable end of terraces rather than directly outside properties.
- 4.8.4 A further consideration would be the enforcement of EV charging bays in on-street locations. It is not proposed that there is initial strict enforcement of residential bays unless there are regular complaints that bays are being blocked, either by people with EVs that are not charging, or by internal combustion engine vehicles (ICED). Enforcement will require a Traffic Regulation Order (TRO) for each bay that is installed in North Yorkshire which will potentially place large workloads on Area and Legal teams. However, in areas close to town centres or visitor destinations it may be necessary to have a TRO from the outset.
- 4.9 Commercial viability:
- 4.9.1 Former North Yorkshire districts encountered challenges regarding the commercial attractiveness of EV charging infrastructure for private investors. This was addressed through differing ownership models that did not require private investment in most instances, the exception being the former Scarborough District. These challenges stem from regulatory connection costs and the region's population density. While some areas in North Yorkshire present attractive opportunities for investment, focusing solely on these commercially viable locations risks leaving large portions of the county without adequate public EV charging infrastructure.

- 4.9.2 A key objective of North Yorkshire Council's Local Electric Vehicle Infrastructure (LEVI) proposals is to support regions that are less likely to attract private investment. The council aims to partner with a Charge Point Operator (CPO) willing to invest throughout the county, ensuring equitable access to charging infrastructure and maximising the impact of LEVI funding. This approach necessitates that more commercially viable areas help subsidise those with potentially longer return-on-investment timelines. The North Yorkshire Council Invitation to Tender is structured in such a way as to encourage investment in areas that may otherwise receive little attention.
- 4.9.3 Although the primary audience for the LEVI program is residential customers, the viability of charging infrastructure can be enhanced by diversifying the customer base. Areas with higher visitor traffic or commuter patterns during the day may provide better support for locations with lower initial usage. This strategy can help create a more sustainable and comprehensive charging network across North Yorkshire, promoting wider EV adoption while ensuring that less profitable areas also receive necessary infrastructure support.
- 4.9.4 It should be noted that the residential charging network is a long-term investment and could take in the region of up to 10 years before there is a revenue share. However, the pricing strategy does ensure that North Yorkshire Council should be able to cover associated costs earlier in the term of the contract. It should not be expected that the LEVI scheme will provide excess funds for North Yorkshire Council for several years. For a quicker return, investment should be directed at rapid charging hubs. It will take time for the demand to pick up as LEVI is aimed to encourage the uptake of EVs by those who are currently unable to charge at home. Consequently, it should be anticipated that initial utilisation will be low while people start to make the switch to electric vehicles between 2025 and 2035.
- 4.10 Accessibility:
- 4.10.1 PAS 1899:2022 is a British Standard developed by the British Standards Institution (BSI) in collaboration with the UK government. It sets out accessibility requirements for electric vehicle (EV) charging infrastructure, specifically aiming to make charging points more inclusive and accessible to all, including disabled users and it has been embedded in the North Yorkshire LEVI specification, contract and invitation to tender.
- 4.10.2 The provision of EV charging infrastructure in North Yorkshire will need to comply with PAS 1899 as much as possible. However, it is recognised that the varied streetscape in North Yorkshire can make achieving all aspects particularly challenging in some instances, for example where there are extremely narrow roads and pavements. Where this is the case, the CPO is expected to complete an Equality Impact Assessment at the design stage to account for why a site is unable to completely meet the PAS 1899 standard, and what steps have been taken to mitigate any impacts, if possible.
- 4.11 Aesthetics:
- 4.11.1 Officers are aware of the need for charging infrastructure needing to blend into a range of settings. Officers will ensure that where public on-street infrastructure is required in sensitive locations that there will be approval sought from conservation officers and that disruption is kept to a minimum.
- 4.11.2 Officers have created a decision tree to ensure that the appropriate infrastructure is approved for location in the correct locations, considering the above factors. Ultimately, North Yorkshire Council has the final say on where any charging infrastructure is located and can refuse permission for site selected by the CPO.

5.0 ALTERNATIVE OPTIONS CONSIDERED:

- 5.1 No approval of on-street charging provision: due to the factors outlined above this course of action is not recommended.
- 5.2 Charge Point Operator given free rein to install on-street charging provision: To ensure quality and compliance with North Yorkshire Council policy this course of action is not recommended.

6.0 RECOMMENDED FOR APPROVAL

- 6.1 Creation of a public on-street charging network with CPO and North Yorkshire Council officers working in partnership: Permission is given to allow the provision of public on-street charging infrastructure based on the Charge Point Operator working closely with officers on site selection based on the North Yorkshire Council developed decision tree.

7.0 TRIAL OF PRIVATE HOUSEHOLD ELECTRIC VEHICLE CHARGING SOLUTIONS

- 7.1 There is a significant disparity in the cost for customers between using public charging points and charging at home. While households with off-street parking can typically charge vehicles at home, up to 25% of homes in North Yorkshire, approximately 65,000 households, do not have access to off-street parking.
- 7.2 Officers have contacted other local authorities in England to track progress on their trials of cross-pavement charging solutions. Feedback indicates generally positive outcomes, although results vary depending on the type of method used.
- 7.3 The trials have primarily focused on cable gullies and cable mats. An alternative using large charge arms to elevate the cable above the pavement was ruled out for North Yorkshire due to additional risks and complications. The arms are potentially expensive, unsightly, and vulnerable to damage from vandalism and passing traffic.
- 7.4 On Friday, 6 September, the EV Infrastructure Team held a workshop at County Hall with councillors, officers, and senior managers to assess the feasibility, risk and opportunities of cable mats and cable gullies. Presentations were made by Kerbo Charge (for cable gullies) and D-Line Cable Management (for cable mats). Durham County Council also shared their experience of trialling both solutions in similar settings to North Yorkshire.
- 7.5 The general response to a trial in North Yorkshire was positive, with a preference for the cable mat solution.

8.0 CABLE MATS

- 8.1 Feedback from Durham County Council suggests that cable mats offer the most flexible and cost-effective solution for cross-pavement charging. This allows residents to charge vehicles at home with minimal disruption to the pavement, provided they meet NYC's specifications. Durham's specification does not require D-Line mats specifically, but certain dimensions and criteria must be met:
- 8.2 The Cable Cover must be:
- Less than 20mm deep, gradient less than 1 in 12.
 - Used with a hazard warning sign that is visible to pedestrians.
 - Used safely, with the cable being secure in the Cable Cover, and the Cable Cover laid flat on the pavement surface.
 - High contrasting, with yellow-hazard warning stripes, or similar.
 - Used in full accordance with producer instructions.

- Not be screw fixed to the surface.
- Removed from the footpath when not in use.

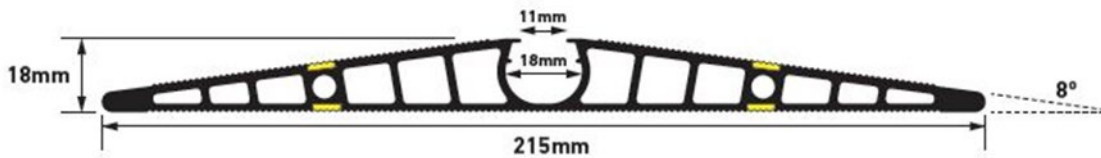


Figure 1: D-Line Cable Cover cross-section



- 8.3 The instructions place responsibility on the user but ensure compliance with the 20mm tolerance for pavement surfacing, which is within acceptable surface level deviations.
- 8.4 Figure 1 demonstrates the cross-section of the cable mat and shows an opening for the cable to be seated in. This is then laid flat across the pavement, at 90 degrees to the kerb. From the kerbside the cable can then either be attached directly to the car to start charging or trailed down the kerbside to a vehicle up to 1 car length away to allow for not being able to park directly outside of the property.
- 8.5 Benefits for the user include:
- Low cost (~£60).
 - Extendibility, with additional 2m sections available.
 - The mat can be secured to the cable to prevent removal.
 - Temporary access to home charging tariffs, potentially saving up to 33p/kWh compared to public charging rates.
- 8.6 The benefits to North Yorkshire Council are:
- Homeowners can provide charging infrastructure on demand, only when needed.
 - Compliance with the Highways Act 1980 regarding surface levels.

- Enables charging infrastructure in areas where public infrastructure may not be viable.
- Reduces EV running costs for those without off-street parking, encouraging battery electric vehicle (BEV) adoption.
- Officer time for approvals can be recovered through a license agreement.

9.0 CABLE GULLIES

9.1 Cable gullies have come in a range of forms, the most basic of which follow old drainage channel that cross the pavement. Taking this as the basis for safely crossing the pavement with a trailing cable the principle has been modified to further contain the cable with brushes, clips and purpose designed and installed gullies. The most advanced of these, to date, has emerged from Kerbo Charge.

9.2 The workshop on 06 September 2024 was attended by Kerbo Charge with a demonstration unit and a presentation of how their solution fitted flush with the level of the pavement and ensured that there was no trip hazard from a cable crossing the pavement.



9.3 Cable gullies, like those developed by Kerbo Charge, now contain cables within a flush-fitting channel, with features like self-closing lids to eliminate trip hazards.

9.4 BSI testing to EN 1433 certifies compliance with British safety standards, ensuring the channels can bear appropriate loads, resist damage, and integrate safely with the footpath.

- **Load Classes:** This defines the load-bearing capacity of the drainage channel, classified from A15 (light pedestrian areas) to F900 (heavy-duty areas like airports or industrial zones). Each class specifies the maximum load the drainage system must support.
- **Structural Integrity:** The channels undergo testing to ensure they can withstand the expected loads and impacts without cracking or failing.
- **Hydraulic Performance:** The design and testing ensure that the drainage system provides efficient water runoff handling.
- **Durability and Corrosion Resistance:** Materials used in drainage systems must be tested for longevity, corrosion resistance, and ability to handle environmental factors like freeze-thaw cycles.
- **Safety:** The standard ensures the drainage channels provide a safe surface for pedestrians and vehicles, reducing trip hazards and ensuring smooth integration with the surrounding surface.

- 9.5 Kerbo Charge's system offers a neat, discreet solution but is more expensive, approximately £1,000. Although the cost can be offset by home charging savings, it may be prohibitive for some households.
- 9.6 A potential complication is the permanent nature of the installation, raising questions about repair responsibilities during utility works or resurfacing.



Digging a new trench and tunnelling under the Kerbo Charge channel



Reinstating the pavement up to the edge of the Kerbo Charge channel

- 9.6.1 The example shown above demonstrates a Virgin Media team working around a Kerbo Charge installation. However, questions still arise over who may or may not be responsible for repairing or replacing damaged installations as a result of works carried out in the pavement. In the meantime, the householder would be unable to utilise the gully to charge their vehicle.
- 9.7 Kerbo Charge includes a Section 178 license agreement. Residents are liable for the safety and upkeep of the installation, with a renewal system in place every two years.
- 9.8 The resident is also responsible for repairs beyond the 10-year warranty. North Yorkshire Council would cover the cost of removing and replacing the gully during routine resurfacing.
- 9.9 It is proposed that Kerbo Charge is considered for a trial in North Yorkshire, but households would need to weigh the investment and understand it may not be approved for future widespread use.
- 10.0 RECOVERING COSTS**
- 10.1 For the purposes of the trial, it is proposed that households using either cross pavement solution pay an annual license fee of between £50-60. This fee would cover inspection, approval processes, and the cost of removing and reinstating any Kerbo Charge installations during resurfacing works. This licence will be administered by Highways Offices and cover their time and costs.

11.0 ALTERNATIVE OPTIONS CONSIDERED

- 11.1 No approval of a cross-pavement trial: This is recommended for dismissal due to the challenges of providing public charging in certain areas of North Yorkshire. These solutions could help equalise the cost of charging for residents without driveways.
- 11.2 Trial of a single cross-pavement solution: While feasible, allowing both mats and gullies to be explored in a trial would help determine the most appropriate solution.

12.0 RECOMMENDED FOR APPROVAL

- 12.1 Creation of a cross-pavement solution trial: It is recommended to trial both cable mats and gullies. This will help assess the feasibility and impact of each solution before further implementation.

13.0 CONSULTATION AND ENGAGEMENT

- 13.1 For the duration of any trial of cross-pavement solutions an engagement exercise should take place across the County to explore whether, or not, the ability to charge at home across the pavement would encourage uptake of an EV. To bring down carbon emissions and air quality issues relating to vehicle use EVs are the only current solution while maintaining the level of mobility that people are used to. They should be used in conjunction with public transport and active travel modes wherever possible, and these should be encouraged over the use of a car. However, it should be recognised that the nature of North Yorkshire means that private car use is still largely unavoidable for a large proportion of the population.
- 13.2 The results of this consultation should be considered in conjunction to the practical measures put in place with the households taking part in the trial. Feedback should be gathered from participants in the trial as well as their neighbours and surrounding stakeholders.

14.0 CONTRIBUTION TO COUNCIL PRIORITIES

- 14.1 Both strands of the above work, public on-street charging provision and private cross-pavement EV charging solutions, contribute the North Yorkshire Council's Carbon Reduction Strategy, Air Quality Management Action Plans, Local Transport Plan and potentially Economic Development Strategies.

15.0 IMPACT ON OTHER SERVICES/ORGANISATIONS

- 15.1 Close working with Parking Services, Highways Teams, Property Services and Legal Services will be required to undertake checks on sites, implement Traffic Regulation Order (TRO) consultations and implementation. Other teams may have occasional involvement if a site is linked to their operations, or they require EV charging provision.

16.0 FINANCIAL IMPLICATIONS

- 16.1 Public on-street infrastructure:
At this time the total cost of delivering on-street charging is not known, the contract for a Charging Point Operator to deliver the infrastructure is a live tender and the proportion of EVCP's that will be delivered on-street vs off-street forms part of their proposals. To date NYC has been successful in securing three capital grants totalling £6.83m to roll-out EV charging infrastructure in areas without off-street parking. The Office for Zero Emission Vehicles (OZEV) mandated that NYC could not set the level of private sector investment

required or the number of chargers expected. The number of chargepoints and level of investment are key factors which form part of the evaluation of the tenders. Consequently, it is not possible to state the number of charging points that will be installed on-street at this time. Detailed financial implications will be addressed in a future report requesting the approval of the winning tender and the adoption of the contract and successful bidder.

- 16.2 Full details of the grant funding are included in the Executive report of 31 October 2024, Procurement of an Electric Vehicle Charge Point Operator (CPO). No additional match funding from the Council is required. All the funding for this programme will be taken from the previously accepted LEVI funding grants:
- Local Electric Vehicle Infrastructure (LEVI) Capital Fund – Grant Acceptance: 24 February 2024.
 - Local Electric Vehicle Infrastructure (LEVI) Pilot Upscaling – Acceptance of Grant – 14 March 2023.
 - Local Electric Vehicle Infrastructure (LEVI) – Acceptance of Grant – 26 October 2022

16.2.1 No additional funding is being sought from NYC and contractual arrangements make clear that any overspend is the responsibility of the CPO to cover.

16.3 The successful CPO will have a three-year window to deliver the LEVI funded charging infrastructure.

16.4 The financial risks associated with not allowing the provision of on-street charging are that there will be a very limited programme of public EV charging rollout, restricted to car parks and third-party sites. Therefore, funding will have to be returned to the Office for Zero Emission Vehicles and revenue share will be split with the third parties. The primary purpose of LEVI is to deliver on-street residential charging provision to support households with no access to off-street parking.

16.5 Cross-pavement charging trial:
There are no financial implications for the cross-pavement solution trials. These will be funded by households and there will be an annual charge for the licence to operate the equipment across the highway which will cover the internal costs. No funding is required from the Council for the cross-pavement trial.

17.0 LEGAL IMPLICATIONS

17.1 Adopting the recommended courses of action will ensure that North Yorkshire Council is compliant with the contract that has been drawn up and the funding requirements from the Office for Zero Emission Vehicles.

17.2 With regards to private cross-pavement solutions the recommended course of action is meant to minimise the risk of any legal implications for North Yorkshire Council with the Household responsible for the any liabilities relating to the use of the EV charging provision that they have installed.

18.0 EQUALITIES IMPLICATIONS

18.1 Equalities considerations have been at the forefront of our considerations for the implementation of a wider EV charging network in North Yorkshire. To this end we have ensured that any installation of public charging infrastructure must be compliant with the PAS 1899 standard wherever possible. Where it has not been possible to fully comply with this recognised standard an Equality Impact Assessment must outline why it has not been possible to make the site compliant with the standard. Further to this the Equality Impact Assessment must outline what mitigating steps have been taken to be as compliant as possible. This Equality Impact Assessment must take place at the design stage so it can go

through an approvals process. Please see the attached Appendix A Equality Impact Assessment for the approved report on the impact of this work on the different strands of equalities legislation.

19.0 CLIMATE CHANGE IMPLICATIONS

19.1 Enabling a greater number of households to consider the switch to zero tailpipe emissions has significant implications for carbon emissions from road transport. While not every household will make the switch immediately the ability to do so is a crucial first step on the road to transitioning. With 44% of North Yorkshire's carbon emissions coming from road transport this opens an opportunity to make significant steps towards reducing carbon emissions in the County. Please see the attached Appendix B Climate Change Impact Assessment for assessed positive and negative impacts of this recommendation.

20.0 POLICY IMPLICATIONS

20.1 It is envisioned that adopting the recommended courses of action will enable a more positive stance to be taken towards the adoption of Battery Electric Vehicles by North Yorkshire Council. Allowing home charging for those with no off-street parking can enable households to make substantial savings in their on-going transport related costs. The installation of a public EV charging network will further give confidence that wherever someone is in North Yorkshire they will be able to charge their vehicle.

21.0 RISK MANAGEMENT IMPLICATIONS

21.1 All reasonable steps are being taken to ensure there is minimal risk to North Yorkshire Council through the implementation of both recommendations. We are clear in our Invitation to Tender for the LEVI programme that risk sits with the nominated Charge Point Operator for the duration of the contract and that they are required to make a substantial investment in the charging network. LEVI is based around an approach of public/private partnership with public investment from the Office for Zero Emission Vehicles stimulating the interest from the private sector into areas that they may otherwise not consider.

21.2 Cross-pavement private EV charging solutions all possible liabilities are being shifted to the household to manage and accept. All reasonable steps, including licencing and site inspections will be undertaken. If the licence is retracted due to complaints or misuse, then the household will be unable to legally operate their home charging point.

22.0 CONCLUSIONS

22.1 North Yorkshire Council has an opportunity to take transformative steps towards reducing carbon emissions from road transport, cutting the cost of motoring during a cost-of-living crisis and enabling a choice in the form of private vehicles adopted by households across the County. In time this could make a significant dent in the 44% of carbon emissions from road transport in the County.

22.2 The recommendations put forward will allow North Yorkshire residents flexibility in how they choose to charge their vehicles, whether from a public charging point or from home. The LEVI programme will ensure that access to the public charging network is dramatically expanded with millions of pounds of investment in infrastructure and services. Giving confidence for residents, businesses, and visitors that it is entirely possible to make the switch to a Battery Electric Vehicle and operate in North Yorkshire without concern about range. Backed up by future proposals to establish a rapid charging network this will see the full spectrum of support offered to the EV transition that is required by 2035, and potentially by 2030 if manifesto commitments are fulfilled.

22.3 The trial of private cross-pavement solutions will give flexibility into how people charge their vehicles when they are at home. It is a demand-responsive solution that allows people to install a charging point when they require it, where it is required. It removed the cost from North Yorkshire Council and gives households the best possible prices that they can secure to recharge their vehicle. The trial will inform North Yorkshire Council which methods are most appropriate in different scenarios in North Yorkshire and inform which, if any, should be taken forward based on information gathered and practical usage data gathered through consultation and engagement with communities allowing for an informed decision to be made.

23.0 RECOMMENDATIONS

- 23.1 That the Executive Member for Highways and Transportation in consultation with the Corporate Director – Environment and the Corporate Director Resources:
- iv. approves the delivery of public on-street electric vehicle infrastructure – subject to the NYC governance processes;
 - v. approves a trial of private household electric vehicle charging in the form of cable mats and gullies (cross-pavement solutions);
 - vi. notes that the trial will lead to a potential review of Council policy, depending on the outcomes.

APPENDICES:

Appendix A – Equality Impact Assessment Screening

Appendix B – Climate Change Impact Assessment

BACKGROUND DOCUMENTS:

Local Electric Vehicle Infrastructure (LEVI) Capital Fund – Grant Acceptance: 24th February 2024.

Local Electric Vehicle Infrastructure (LEVI) Pilot Upscaling – Acceptance of Grant – 14th March 2023.

Local Electric Vehicle Infrastructure (LEVI) – Acceptance of Grant – 26th October 2022

BARRIE MASON

Assistant Director - Highways and Infrastructure

County Hall

Northallerton

17 January 2025

Report Author and Presenter: Tom O'Donovan – Electric Vehicle Infrastructure Officer

Initial equality impact assessment screening form			
This form records an equality screening process to determine the relevance of equality to a proposal, and a decision whether or not a full EIA would be appropriate or proportionate.			
Directorate	Environment		
Service area	Major Projects		
Proposal being screened	On-street residential charging opportunities		
Officer(s) carrying out screening	Tom O'Donovan		
What are you proposing to do?	<p>Seeking permission from the Executive Member for Highways and Transportation to approve the following:</p> <p>Approve public on-street EV infrastructure.</p> <p>Approve a trial of private household EV charging across the pavements in North Yorkshire</p>		
Why are you proposing this? What are the desired outcomes?	To allow the progress of our delivery of a comprehensive EV charging network in residential areas of North Yorkshire with no off-street parking.		
Does the proposal involve a significant commitment or removal of resources? Please give details.	No		
<p>Impact on people with any of the following protected characteristics as defined by the Equality Act 2010, or NYC's additional agreed characteristics</p> <p>As part of this assessment, please consider the following questions:</p> <ul style="list-style-type: none"> To what extent is this service used by particular groups of people with protected characteristics? Does the proposal relate to functions that previous consultation has identified as important? Do different groups have different needs or experiences in the area the proposal relates to? <p>If for any characteristic it is considered that there is likely to be an adverse impact or you have ticked 'Don't know/no info available', then a full EIA should be carried out where this is proportionate. You are advised to speak to your directorate representative for advice if you are in any doubt.</p>			
Protected characteristic	Potential for adverse impact		Don't know/No info available
	Yes	No	
Age		X	
Disability			X
Sex		X	
Race		X	
Sexual orientation		X	
Gender reassignment		X	
Religion or belief		X	
Pregnancy or maternity		X	
Marriage or civil partnership		X	
People in rural areas		X	
People on a low income		X	
Carer (unpaid family or friend)		X	
Are from the Armed Forces Community		X	
Does the proposal relate to an area where there are known inequalities/probable impacts (for example, disabled people's	No.		

APPENDIX A

access to public transport)? Please give details.				
Will the proposal have a significant effect on how other organisations operate? (for example, partners, funding criteria, etc.). Do any of these organisations support people with protected characteristics? Please explain why you have reached this conclusion.	No			
Decision (Please tick one option)	EIA not relevant or proportionate:	✓?	Continue to full EIA:	
Reason for decision	This is a report to request permission to install on-street charging infrastructure and to seek permission for launching a trial of cross-pavement home charging provision. There are no known impacts on people with protected characteristics.			
Signed (Assistant Director or equivalent)	Barrie Mason			
Date	21/01/2025			

Initial Climate Change Impact Assessment (Form created August 2021)

The intention of this document is to help the council to gain an initial understanding of the impact of a project or decision on the environment. This document should be completed in consultation with the supporting guidance. Dependent on this initial assessment you may need to go on to complete a full Climate Change Impact Assessment. The final document will be published as part of the decision-making process.

If you have any additional queries, which are not covered by the guidance please email climatechange@northyorks.gov.uk

Title of proposal	On-street residential charging opportunities Executive Member Report
Brief description of proposal	Seeking permission from the Executive Member for Highways and Transportation to approve the following: Approve public on-street EV infrastructure. Approve a trial of private household EV charging across the pavements in North Yorkshire
Directorate	Environment
Service area	Network Strategy
Lead officer	Tom O'Donovan
Names and roles of other people involved in carrying out the impact assessment	Keisha Moore, Helena Driffill-Agar

APPENDIX B

The chart below contains the main environmental factors to consider in your initial assessment – choose the appropriate option from the drop-down list for each one.

Remember to think about the following;

- Travel
- Construction
- Data storage
- Use of buildings
- Change of land use
- Opportunities for recycling and reuse

Environmental factor to consider	For the council	For the county	Overall
Greenhouse gas emissions	No effect on emissions	Decreases emissions	Decreases emissions
Waste	No effect on waste	No effect on waste	No effect on waste
Water use	No effect on water usage	No effect on water usage	No effect on water usage
Pollution (air, land, water, noise, light)	No effect on pollution	Decreases pollution	Decreases pollution
Resilience to adverse weather/climate events (flooding, drought etc)	No effect on resilience	No effect on resilience	No effect on resilience
Ecological effects (biodiversity, loss of habitat etc)	No effect on ecology	No effect on ecology	No effect on ecology
Heritage and landscape	No effect on heritage and landscape	No effect on heritage and landscape	No effect on heritage and landscape

If any of these factors are likely to result in a negative or positive environmental impact then a full climate change impact assessment will be required. It is important that we capture information about both positive and negative impacts to aid the council in calculating its carbon footprint and environmental impact.

APPENDIX B

Decision (Please tick one option)	Full CCIA not relevant or proportionate:	X	Continue to full CCIA:	
Reason for decision	A full CCIA is not relevant or proportionate as the report is seeking permission to approve the delivery of public EV infrastructure in an on-street setting and also approve a trial of private household cross pavement EV charging in North Yorkshire – a full CCIA will be completed for both projects in due course.			
Signed (Assistant Director or equivalent)	Barrie Mason			
Date	21/01/2025			