

North Yorkshire County Council

Executive

8 November 2022

Electric Vehicle Public Charging Infrastructure - Rollout Strategy for Public Consultation

Report of the Corporate Director – Business and Environmental Services

1.0 Purpose of Report

- 1.1 To inform Members of the background and to provide an update on the development of an Electric Vehicle (EV) Public Charging Infrastructure Rollout Strategy for North Yorkshire.
- 1.2 To seek approval to launch a public consultation regarding the Electric Vehicle Public Charging Infrastructure Rollout Strategy.

2.0 Glossary of Terms

- 2.1 There are a significant number of abbreviations in the report so please refer to the glossary of terms below:

3.0	Electric Vehicle	EV
	Electric Vehicle Charge Point	EVCP
	Battery Electric Vehicle (fully electric)	BEV
	Plug in Hybrid Electric Vehicle	PHEV
	Ultra-Low Emission Vehicles	ULEV
	Local Transport Plan 4	LTP4
	North Yorkshire County Council	NYCC
	Department for Transport	DFT
	Office for Zero Emission Vehicles	OZEV
	Local Enterprise Partnership	LEP
	Distribution Network Operator	DNO
	Local Electric Vehicle Infrastructure Fund	LEVI
	Internal Combustion Engine	ICE

Background

- 3.1 Over the past two years, the York and North Yorkshire Local Enterprise Partnership (Y&NY LEP) has been leading the development of a 'York and North Yorkshire Routemap to Carbon Negative'. This routemap will provide a clear, co-owned plan to achieve net zero by 2034 and carbon negative by 2040. This focus on transformative decarbonisation has also been at the heart of the, 30-year Devolution Deal for York and North Yorkshire that was announced by Government on 1 August 2022. The York and North Yorkshire Routemap to Carbon Negative: scale of ambition is to achieve net zero by 2034, and carbon negative by 2040 and has the following priorities and actions for the period 2022-2027 which include:
- i. Decarbonise and increase use of public transport
 - ii. Enable the shift to low carbon vehicles
 - iii. Enable cleaner logistics
- 3.2 More specifically the Routemap sets out its ambition targets for Transport as one of the highest emitting sectors including:

- Roll-out of battery electric buses, ensuring they account for 25% of the fleet by 2030 and 95% by 2038.
- Roll-out of battery electric vehicles, ensuring they account for 33% vehicles on the road by 2030, and 76% by 2038 (Battery electric vehicle sales to be in the order 20,000 per year by 2038)
- Sales of zero emissions heavy goods vehicles increasing from around 250 per year in 2030 to close to 700 per year by 2038

- 3.3 The North Yorkshire Local Transport Plan (2016), which details how the transport services and infrastructure provided by NYCC aims to contribute towards the NYCC Vision and Council Plan priorities, pledges to protect the environment and prevent climate change. The Plan highlights how NYCC supports measures to promote environmentally friendly forms of transport, including supporting and making provision for the use of Ultra Low Emission Vehicles (ULEV). This aligns to the North Yorkshire Draft Air Quality Strategy (2020); one of the key objectives of which is to support the use of ULEVs in North Yorkshire, including the provision of EV charging infrastructure. The LTP is being rewritten to accommodate the significant policy and technology changes that have occurred since the plan was adopted and the Devolution Deal.
- 3.4 In April 2020 North Yorkshire County Council (NYCC), jointly with the Local Enterprise Partnership (LEP) commissioned the Electric Vehicle Charging Deployment Study. The study identifies measures NYCC and the district/borough councils and National Park Authorities (NPAs) can, or should, be taking to overcome barriers to electric vehicle charge point (EVCP) rollout. The study also identified the number of EVCPs required between now and 2030, when there will be a ban on the sale of vehicles with internal combustion engines, based on a forecasted uptake of Electric Vehicles (EV). Please see section 4.0 for more information about this Study.
- 3.5 The next phase of work is to establish where charge points should be located, how we can overcome the aforementioned barriers to delivery and what policy changes need to take place to achieve this. The development of this EV Public Charging Infrastructure Rollout Strategy commenced in October 2021, funded by the NYCC Beyond Carbon Pump Priming fund, and completed in October 2022. Now we hope to launch a public consultation for the Strategy in November with a view to the County Council adopting the strategy in the first half of 2023.

4.0 Key outputs from the 2020 Electric Vehicle Charging Deployment Study

- 4.1 The 2020 Electric Vehicle Charging Deployment Study identified the key barriers to delivery as:
- Grid Constraints/Capacity and associated grid connection costs
As the uptake of EVs increases across the County the demand on the electrical network will also increase and many places, especially those that are already nearing capacity, will require costly reinforcements be made to ensure that the grid can supply and match the demand.

In some cases, there may be an existing energy supply, with adequate power capacity, and which is within reasonable distance of the proposed EVCPs. In which case a new DNO connection is not required. However, if a new connection needs to be made there can be significant variability in the grid connection costs subject to the local conditions, the distance of the connection and whether any upgrades are required.
 - The rural nature of large parts of North Yorkshire

The rural nature of North Yorkshire results in a number of transport issues, including a higher car dependency due to a lack of alternative options and the need for long drives. Range anxiety –a concern over battery charging running out before the next EVCP can be reached –is exacerbated by such long trips and is preventing people in rural areas from making the switch to EV. North Yorkshire has over 50 primary substations and a significant proportion of primary substations show no/limited spare capacity. Issues of high connection costs and low utilisation rates means that the private sector is typically less interested in delivering rural EVCPs. As such, there is a risk of ‘charging deserts’ across North Yorkshire’s rural areas, deterring EV uptake if the public sector doesn’t step in.

- The volume of on-street parking, particularly in residential areas
21% of households in North Yorkshire do not have access to off-street parking. The ability to charge an EV cheaply and conveniently at home is one the major attractions of switching to an EV. Conversely, being more reliant on the public charging network is known to be a major concern of would be EV adopters, and so presents a significant barrier to uptake. A potential alternative for those parking on-street, with no access to public chargers, is for them to trail a cable over the footway and charge from their own domestic charge point or wall socket but this solution comes with issues of poor visual aesthetic, public liability and ownership/maintenance challenges which are yet to be successfully resolved.

- 4.2 There were 12 recommendations made in the 2020 study that aimed to provide a series of actions that NYCC and its partners could carry out to overcome the barriers to EVCP rollout. The recommended actions were based on the evidence gathered in the study, and forecast EV uptake and EVCP requirements:
- i. Accelerate charge point deployment to promote EV uptake
 - ii. Focus on establishing good charge point coverage and plugging gaps
 - iii. Deliver the right solution for the right location
 - iv. Make the most of available funding opportunities
 - v. Take a balanced approach to delivering charging infrastructure, inviting private investment but retaining control
 - vi. Let the private sector take the strain and carry the risk where possible
 - vii. Seek LEP funding to deliver chargers reliant on public funding
 - viii. Leverage your scale via a County-wide procurement
 - ix. Promote EV charging at tourist destinations
 - x. Undertake promotional activities and awareness raising
 - xi. NYCC should take a county co-ordination role
 - xii. Establish a North Yorkshire EV Forum and EV strategy to be adopted by all partner authorities
- 4.3 The actions outlined in the subsequent EV Public Charging Infrastructure Rollout Strategy will help us to realise these recommendations.
- 4.4 The 2020 Study showed that in Q3 2020 there were 1,961 EV’s registered in North Yorkshire and 142 publicly available chargers. It also showed there are 288,289 ICE vehicles meaning 0.4% of all vehicles in North Yorkshire are EV’s. In comparison, the Study showed that across the UK 0.7% of all registered vehicles are EVs, meaning North Yorkshire has almost half of the national average percentage registered vehicles being EVs. This study predicted North Yorkshire would need an additional 615 publicly available charge points by 2030 (448 of which need to be delivered by 2025) this was based on a forecast 95,070 people across the region registering EV’s by 2030. See table 1.0 below.

Table 1.0

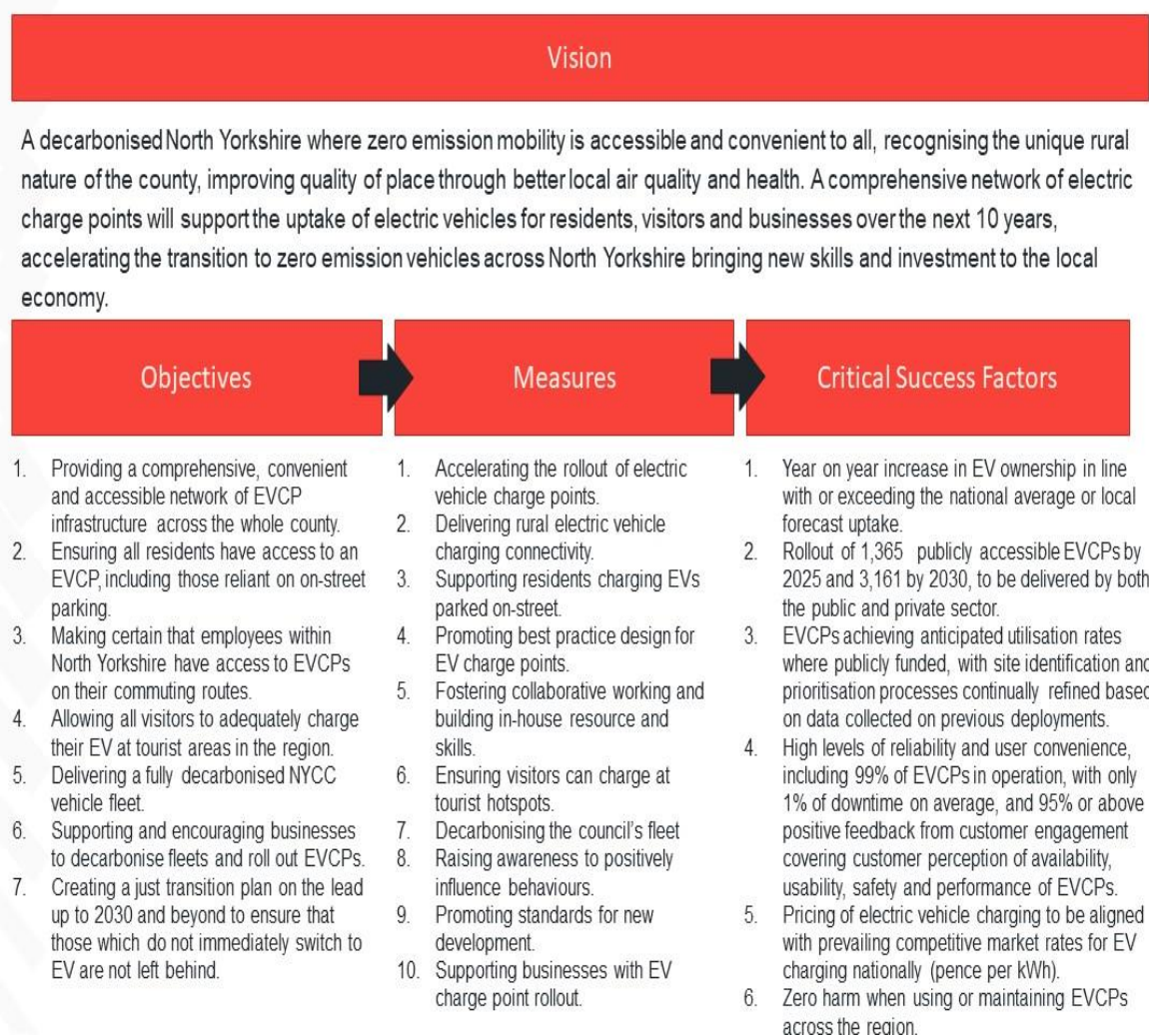
Forecast Publicly Funded EVCP Requirement	2020	2025	2030
Fewer EVCPs per EV (High Ratio)	-38	178	300
Mid-range EVCPs per EV (Mid Ratio)	-12	448	615
More EVCPs per EV (Low Ratio)	37	687	1,317

- 4.5 The assessment of EVCP requirements completed for this study considered a wide range of variables, including forecast EV growth by vehicle type, vehicle mileage, vehicle efficiency, EVs with access to off-street parking, proportion of charging (kW) delivered via public chargers, average charge rate (kW), average charger utilisation and the proportion of charging (kW) delivered by charger type. Based on all these factors, Low, Mid and High ratios were determined for the number of EVs per EVCPs,
- Low –means fewer EVs per EVCP, i.e. a more generous level of public charging provision, assuming each charger is utilised less intensively, with lower average charging rates.
 - High –means more EVs per EVCP, i.e. fewer public charge points, assuming chargers are optimally deployed, with higher average charge rates.
 - Mid –is a middle ground between these two extremes, assuming increasing utilisation and charging rates
- 4.6 For the purpose of this assessment, conservative mid-range assumptions were applied, assuming the majority of charging continues to take place from home/ workplaces, but with an increase from 20% to 31% of kW drawn from public chargers by 2030, based on the share of EVs registered at households without off-street parking rising from 10 % to 15%, and the share of public charging for those with off-street parking increasing from 12% to 20%.
- 5.0 Key Outputs/updates from 2022 Electric Vehicle Public Charging Infrastructure Rollout Strategy**
- 5.1 The Electric Vehicle Public Charging Infrastructure Rollout Strategy aims to be both an ambitious and practical document that, following on from the recommendations in the 2020 Study, describes what we need to achieve by 2030, where in the county we should be focusing our efforts and specific actions we should be taking so we can begin to deliver EVCPs. A copy of the consultation version of the strategy is included as **Appendix A**.
- 5.2 The key outputs from this work are:
- An EV Infrastructure Rollout Strategy which includes the following key outputs;
 - A vision, Objectives and Priority Measures
 - A revised forecast of EVCP's required by 2030
 - A budget figure to achieve this
 - A review of options to serve households without off-street parking including cable gullies and trailing cables
 - A policy review

➤ A transition plan for beyond 2030 – to ensure no one is left behind

- Technical advice to aid planning
- Detailed priority site selection where EVCPs should be delivered

5.3 The vision, objectives and priority measures can be found below. In the strategy each of the measures has a detailed recommendation which outlines how the objectives can be achieved, they can be found at pages 20-36. There is a section on funding within the report which outlines possible options for funding to achieve these objectives, they include grant and private funding and Local Authority assigned budgets.



5.4 The Strategy confirms there were 3,969 electric vehicles registered and 225 publicly available EVCPs in North Yorkshire as of Q3 2021 (up from 2,287 and 142 respectively in Q3 2020). 3,969 vehicles equate to 1.14% of all vehicles in North Yorkshire. When compared to the rest of the UK, the vehicle fleet in North Yorkshire has less EVs than the national average of 1.64%. However, uptake in North Yorkshire has been rising rapidly year on year. In 2015 (Q3) there were only 270 EVs, which equates to an increase of almost 15 times in six years,

5.5 Across the UK, there are currently 29,740 EVCPs located at 18,639 locations, which is an increase of 263% over the last five years. Whilst there has been a substantial increase in recent years, the proportion of EVCPs available per kilometre of road will need to increase

further to match the rising number of EV's on the road. In North Yorkshire, the number of publicly accessible EVCPs is low but has been growing year on year. Between 2020 and 2022 the number of EVCPs has risen from 142 to 225 units an increase of 59%. Both the public and private sector (including District and Borough Authorities) have been engaged in the installation of charge points in North Yorkshire, although to date the majority of units installed have been privately funded. EV charging provision is unequally distributed across the county and there remain many areas in North Yorkshire that do not have any EVCP provision yet in place. Table 2.0 shows the existing distribution of chargers by local authority. The slow rise in EVCPs compared with EV uptake is likely attributed to the aforementioned issues regarding the rural nature of North Yorkshire, high grid connection costs and capacity issues making the sites commercially unattractive (even when offset with more lucrative sites), and the volume of on-street parking across the county.

Table 2.0 – Existing Chargers per local authority

Authority	Existing charge points		
	Fast	Rapid	TOTAL
Craven	25	4	29
Hambleton	28	10	38
Harrogate	44	12	56
Richmondshire	10	10	20
Ryedale	47	4	51
Scarborough	19	1	20
Selby	7	4	11
North Yorkshire	180	45	225

- 5.6 The strategy forecasts that 3161 public charge points are required by 2030 (1,365 of which need to be delivered by 2025). It is anticipated that the public sector will need to fund 1529, or half, of the overall charge point requirements by 2030 at an approximate cost of £10.3m. There is currently no identified funding for this. This figure is based on a mid-range estimate of forecast EVCP's as well as mid-range costs per unit. The £10.3m is an estimate which includes grid connection costs but does not include grid upgrades or maintenance costs. EVCP's are currently expected to have a lifespan of around 8-12 years before replacement is required. Assessments will need to be carried out by the Distribution Network Operator (DNO), Northern Powergrid to calculate the grid upgrade costs at each new EVCP site. Quotes received to date range between £2,400 to £636,000 depending on the site constraints, number and type of chargers proposed.
- 5.7 To arrive at the forecast for the level of EV uptake expected across North Yorkshire up to 2030 modelling was undertaken. Firstly, national trends in EV uptake were calculated by averaging a range of industry forecasts, combined with information on the impact of upcoming EV model launches by vehicle manufacturers and national government policies. Further data was then used to calculate specific uptake values for North Yorkshire. This data includes trends in total vehicle sales, vehicle age and turnover rates, the localised propensity to purchase an EV in the local population, vehicle ownership levels and reliance on on-street parking, to provide an objective and measured assessment of EV uptake across the region. Subsequently modelling was undertaken to forecast the number of EVCPs required up to 2030, using the forecast EV uptake values, additionally, a wide range of variables were calculated, including:
- Charging habits –use of public vs private charging and rapid vs slow chargers.
 - Off-street parking availability.

- Trends in vehicle technologies –which will increase range and efficiency.
- Trends in charger technologies –which will increase charging speeds.
- Vehicle mileage and ownership trends.
- Uptake of PHEVs and BEVs.
- Ratio of PHEV miles in electric mode.

By combining information on all of the above, a reasonably accurate estimation of the charging requirements could be calculated.

- 5.8 It is now estimated that 724 chargers need to be delivered by 2025. The overall requirement is circa 900 more chargers than was forecast in 2020 but this reflects the significant increase (74%) in uptake of EV's between 2020 and 2021. See Table 2.0 below.

Table 2.0

	2020 Existing	2022 Existing	2020 Forecast to 2030	2022 Forecast to 2030
EV Ownership (North Yorks)	2287	3969	95,070	134,271
EV Chargers (North Yorks)	142	225	615	1529

- 5.9 A key next stage, following the publication of this strategy, will be to quickly move into the delivery phase for the next rounds of publicly accessible EVCPs. We have completed an initial assessment for two of our districts (Richmondshire and Scarborough). A site selection exercise was undertaken to identify the priority locations for EVCPs in these districts, following a process which we will then look to replicate across North Yorkshire. In section 5.6 of this report we reference that we received quotes for these sites from the DNO which range between £2,400 to £636,000 depending on the site constraints, number and type of chargers proposed. The latter estimate is for a site with no spare capacity and currently the connecting customer, in this case NYCC, is responsible for paying for both reinforcement and connection costs, however, a recent Ofgem report indicates that, from 1 April 2023, a customer wanting to connect to the network for a 'demand' purpose would no longer be responsible for paying for any reinforcement or upgrade work needed. The connecting customer would therefore only be responsible for paying connection costs. The reinforcement costs would instead be covered by the DNO, who would recoup these via Distribution Use of System (DUoS) charges (part of your overall electricity bill) up to a high-cost threshold. Above this threshold, the connecting customer would be responsible for paying the excess reinforcement costs.
- 5.10 NYCC and the LEP already has a good working relationship with the main local Distribution Network Operator (DNO), Northern Powergrid, and we will continue working closely with them to align our strategy for the rollout of EVCPs with their business planning for grid capacity upgrades. Partnership working with the DNOs will enable us to streamline grid capacity and charging demand assessments. The Strategy highlights actions NYCC can take to address the grid capacity and connection issues that are highlighted as a barrier to the rollout of EVCP's in the 2020 Electric Vehicle Charging Deployment Study.
- 5.11 NYCC will also investigate and deliver innovative ideas to address the challenges of delivering EVCPs in rural areas. The recent successful bid for £2m of Local Electric Vehicle Infrastructure (LEVI) funding will see us deliver on this commitment and will enable the total number of chargers required to be reduced by 70. We will co-locate EVCPs with battery storage and use energy generated by a renewable source (either a hydroelectric generator or solar panels) to offset all or some of the power required to run the EVCP. We are

committing to deliver 10 chargers over two rural sites in each of our seven Districts/Boroughs. These will provide a solution that can be tested and, if successful, rolled out more widely to overcome the challenges of delivery of EVCP's in rural areas. It should be noted that although we have committed to 10 chargers over two rural sites per district, this is scalable. We need to review the 14 sites identified in the bid for suitability with the DNO, where a site is not suitable or cannot accept the proposed amount of EVCP's we will reduce the volume being delivered at that particular site and this could provide an opportunity for additional sites to be delivered. The spending deadline for LEVI is 31 March 2025.

- 5.12 Also included in the strategy is a review of options to serve households that do not have access to off-street parking, solutions to overcome this have been identified including lamp column/kerbside charging, nearby overnight charging hubs and permitting trailing of cables and cable channels over the footway. We are regularly asked by the public to consider trailing cables/cable channels to enable them to charge an electric vehicle at their home, however, we are not advocating this at the moment given the potential implications for pedestrian safety. We have signalled our intention in the strategy to carry out a review of the outcome of existing pilots in other parts of the country (which are still ongoing) and any policy changes that are needed should any suitable on-street methods be identified, before making a decision on how to proceed.
- 5.13 Finally, the Strategy includes an objective to create a 'just transition plan' to ensure no one in the county is left behind once the ban on the sale of new internal combustion engine (ICE) vehicles is enforced in 2030. This involves ensuring charging infrastructure is available to those in areas that may otherwise not be able to make the change to an electric vehicle. The strategy seeks to tackle this important issue by meeting the demand for affordable and accessible charging infrastructure to enable everyone to be able to charge. This includes tackling the issues of rural connectivity, incentivising and encouraging behaviour change (through offering car share initiatives or offering lower cost charging for certain locations) and working with businesses to ensure the total charging demand is met. LEVI is an important first effort to overcome some of these challenges. There will also be people, who for many different reasons, will still be driving an ICE vehicle and they still need to be able to fuel their vehicle with petrol or diesel, so making sure fuel is still accessible for them will be an important part of the 'just transition plan' which we will develop in tandem with the delivery of the EVCP roll out.

6.0 Commercial Opportunities

- 6.1 The method of funding the proposals is still to be worked through and agreed. Wherever possible and appropriate, we will seek to minimise cost to NYCC by applying for grant funding or by partnering with the private sector through a concessionary business model, with the majority of funding (70-80%) for charging infrastructure expected to come from the private sector by 2030.
- 6.2 A concessionary delivery model is where the investment is part funded by both the public and private sector. Charge points are installed and funded by the public sector, or part funded by public and private sector, and operated and maintained by a CPO for an agreed period under a profit share arrangement. For example, the local authority may complete the enabling works and electrical connection, for the CPO to then install and operate the charger. A concessionary model can enable a balanced approach to delivering charging infrastructure, using grant funding alongside private sector investment to expand the local charging network and ensure adequate coverage.
- 6.3 In addition, by packaging up a number of sites and inviting concessionaires to operate the sites to agreed terms, authorities can seek to offset the less commercially viable sites with

others that are more attractive to operators. This avoids a scenario where an authority is left with only the hard to deliver sites, which are likely to be loss making, though the share of revenue will be significantly lower than in fully public owned model.

- 6.4 Further we expect to attract private sector investment as a result of the LEVI funding; we could use the business case to go to market or develop it ourselves as a commercial venture, with a benefit back to local residents and businesses.

7.0 Public Consultation

- 7.1 The proposal is to launch a public consultation for this strategy with the aim of seeking views regarding where barriers and challenges to EV uptake exist (to confirm our assumptions in this strategy are correct) and seek opinions on the measures being proposed as part of NYCCs EV strategy to overcome them.
- 7.2 The public consultation asks some initial questions about EV ownership, and the challenges faced by existing EV owners or barriers to someone making the switch from an ICE Vehicle. We then ask to what extent the responder agrees with the ten proposed measures from the strategy and provides an opportunity for the writer to give an explanation for their response. This can be found at **Appendix A**.
- 7.3 We will provide a link to the proposed measures which will summarise each one, why it is needed and then lists the specific actions required to achieve this. This template can be found at **Appendix B**. In summary the ten measures which are also listed in section 4.3, are as follows:
- i. Accelerating the rollout of electric vehicle charge points
 - ii. Delivering rural electric vehicle charging connectivity
 - iii. Supporting residents charging EVs parked on-street
 - iv. Promoting best practice design for EV charge points
 - v. Fostering collaborative working and building in-house resource and skills
 - vi. Ensuring visitors can charge at tourist hotspots
 - vii. Decarbonising the council's fleet
 - viii. Raising awareness to positively influence behaviours
 - ix. Promoting standards for new development
 - x. Supporting businesses with EV charge point rollout
- 7.4 The consultation will be live from 10th November to 11th December 2022 and available on the NYCC website. A survey platform called Smart Survey will be used to collect the responses and a link to the survey will be provided on the NYCC website, on the EV Strategy page. The consultation will be promoted mainly through social media but also using internal stakeholder groups and existing contacts for parish/town councils, CPO's and other partners.
- ## **8.0 Next Steps**
- 8.1 We expect that public consultation will inform some changes to the actions, which will affect the final strategy. Following receipt of the final strategy document, NYCC Members will need to make some decisions on next steps and potentially adopt the strategy and establish an EVCP budget.
- 8.2 Following the adoption of the strategy, we will use it as our guide for network planning across North Yorkshire, which will lead to mass rollout of EVCPs. It will also be an

important supplementary document for the LTP. It is important to note that the contracts for EVCPs that have already been developed by Districts and Boroughs, primarily in public car parks in market towns and urban centres, will novate to the new North Yorkshire Council as part of the Local Government Reorganisation process and form a part of the network plans.

- 8.3 The Electric Vehicle Public Charging Infrastructure Rollout Strategy is a plan to 2030 and beyond that is front loaded with the majority of EVCPs being delivered in the first five years? There is a potential for funding through future funding settlements that could come as a result of the Devolution Deal from 2024/25 onwards.
- 8.4 We have completed an initial assessment for two of our districts and the next piece of work will be to map out the other five districts in the coming months to then establish a more detailed implementation programme.
- 8.5 Concurrently, we will continue to deliver the LEVI Pilot scheme which focuses on delivery in rural areas. We will engage further with the Rural Task Force and use this as a mechanism to highlight the challenge that we face and ask for support in raising awareness of this issue.
- 8.6 The full LEVI fund is expected to be launched in the next financial year (2023/24) and we intend to bid into this fund to support further EVCP delivery.

9.0 Equalities

- 9.1 Consideration has been given to the potential for any equality impacts arising from the recommendations. It is the view of officers that at this stage the recommendations do not have an adverse impact on any of the protected characteristics identified in the Equalities Act 2010. A copy of the Equality Impact Assessment screening form is attached as **Appendix C**.

10.0 Finance

- 10.1 There are no direct financial implications arising from this update to note the strategy and approve the launch of the consultation – the project development fees of £63,075 for the EV Strategy, which includes the cost for public consultation, are being funded by the Beyond Carbon Pump Priming Fund.
- 10.2 There will be financial implications in the future to roll out the strategy and there is currently no identified funding for this beyond the LEVI grant of £2m and an associated local contribution of up to £200k from the Civil Parking Enforcement Reserve. The LEVI funding delivers approximately 70 EVCPs and the countywide roll out strategy forecasts a required budget figure of £10.3m to fund 1529 EVCPs between now and 2030, this figure includes grid connection costs but does not include grid upgrades (which vary based on remaining capacity and the particular locations distance from the nearest substation). Further details of funding options will be included in future reports to Executive at the appropriate time.
- 10.3 The Electric Vehicle Public Charging Infrastructure Rollout Strategy for North Yorkshire will inform and support any future bids, enabling us to respond quickly when funding opportunities are announced.

11.0 Legal

- 11.1 The consultation is to be undertaken having regard to legal guidance and principles on consultation. In the event that partnering opportunities arise to assist in delivering the future strategy the Council's financial and contract procedure rules will be adhered to.

12.0 Climate Change

- 12.1 There are no climate change issues arising from this report. A copy of the Climate Change Impact Assessment screening form is attached as **Appendix D**.

13.0 Recommendation

- 13.1 The Executive are asked to approve:

- i. The proposed public consultation draft of the Electric Vehicle (EV) Public Charging Infrastructure Rollout Strategy for North Yorkshire.
- ii. The launch of a public consultation on the priority actions and measures contained in the strategy.

Karl Battersby
Corporate Director – Business and Environmental Services

Author of Report: Keisha Moore

Background Documents: None

Appendices:

Appendix A – Public Consultation

Appendix B – Template *Text for EV Study webpage on NYCC website*

Appendix C – Equality Impact Assessment

Appendix D – Climate Change Impact Assessment

Introduction:

North Yorkshire County Council (NYCC) is committed to reducing our carbon impact by accelerating the shift from petrol and diesel to electric vehicles (EVs). In order to do so, it is crucial that the infrastructure is in place to support this shift and to allow drivers to transition easily to using EVs. Part of this is ensuring that EVs can be charged easily and conveniently. While many consumers will charge their EVs at home, there is a need for a publicly accessible charging network for those who have no access to electric vehicle charge points (EVCPs) at home or work, to help quell any anxiety related to charging and driving range. To help in meeting this aim, NYCC is implementing a strategy to help overcome barriers and support implementation of a charging network.

We now need your help, by completing this short questionnaire, you can let us to identify where barriers and challenges to EV uptake exist and let us know what you think of the measures being proposed as part of NYCCs EV strategy.

1. Do you currently own a fully Electric Vehicle (EV) or hybrid vehicle?

- ☐ Yes (*Please answer Q2*)
☐ No (*Please skip to Q5*)

2. Please let us know the TOP THREE challenges you face as an EV owner... Please write in

1st	
2nd	
3rd	

3. Which of these options best describes your electric vehicle (EV)?

- ☐ A fully electric vehicle
☐ A plug-in hybrid vehicle
☐ A self-charging hybrid vehicle

4. Which of the following best describes the location where you park your EV when you are at home?

- ☐ A private garage or driveway
☐ A designated parking bay
☐ On-street parking
☐ Public car park
☐ Other (please write in)

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Please skip to Q6

5. Please let us know the TOP THREE barriers to you owning an EV... Please write in

1st	
2nd	
3rd	

6. Are there any publicly accessible EV charging points within a 5-10 minute walk of your home?

- ☐ Yes, within a 5 to 10 minute walk
☐ Yes, less than a 5 minute walk away

- ☐ No
☐ Don't know / not sure

NYCC have worked with consultants WSP to develop an Electric Vehicle (EV) Infrastructure Rollout Strategy to accelerate the delivery of EV charging infrastructure and support the Council to meet its objective to accelerate the shift from petrol and diesel to EVs.

Please consider the actions proposed in the Strategy and let us know to what extent you agree with each of them below.



ACTION 1

7A. Accelerating the rollout of EV charge points

– NYCC installing public accessible EV charge points to ensure network coverage is fairly distributed across North Yorkshire

Strongly Agree Agree Neutral Disagree Strongly Disagree

☐ ☐ ☐ ☐ ☐

Please explain your answer:



ACTION 2

7B. Delivering rural EV charging connectivity

– overcoming barriers to EV charging delivery in rural areas

Strongly Agree Agree Neutral Disagree Strongly Disagree

☐ ☐ ☐ ☐ ☐

Please explain your answer:



ACTION 3

7C. Supporting residents charging EVs parked on-street

– proactively delivering publicly accessible EV charge points in areas of demand for on-street charging

Strongly Agree Agree Neutral Disagree Strongly Disagree

☐ ☐ ☐ ☐ ☐

Please explain your answer:



ACTION 4

7D. Promoting best practice design for EV charge points

– ensuring high standards for EV charge point delivery

Strongly Agree Agree Neutral Disagree Strongly Disagree

☐ ☐ ☐ ☐ ☐

Please explain your answer:



ACTION 5

7E. Fostering collaborative working and building in-house resources and skills

– fully utilising in-house skills and engaging with wider stakeholders

Strongly Agree Agree Neutral Disagree Strongly Disagree

☐ ☐ ☐ ☐ ☐

Please explain your answer:



ACTION 6

Strongly Agree Agree Neutral Disagree Strongly Disagree

7F. Ensuring visitors can charge at tourist hotspots – ensuring EV charging network coverage in key tourist destinations and stopovers

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please explain your answer:



ACTION 7

7G. Decarbonising the council's fleet – leading by example on transitioning our fleet to zero emissions, where possible

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer:



ACTION 8

7H. Raising awareness to positively influence behaviours – informing residents of the benefits of EV ownership

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer:



ACTION 9

7I. Promoting standards for new development – developing more ambitious, collective EV charge point standards

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer:



ACTION 10

7J. Supporting businesses with EV charge point rollout – supporting businesses with guidance, advice and information sharing

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer:

8. Are there any measures that haven't been included that you'd like to see in order to accelerate the rollout of charging infrastructure across North Yorkshire?

Please write in

9. Are you responding to this survey as...

- ☐ An individual
- ☐ On behalf of an organisation (please write details in below and skip to Q12)

10. Which age group do you belong to...

- ☐ 18 – 24 years

- ☐ 25 – 34 years
- ☐ 35 – 45 years
- ☐ 46 – 55 years
- ☐ 56 – 65 years
- ☐ 66 – 75 years
- ☐ Over 75 years

11. Do you have any condition which affects your mobility?

- ☐ No
- ☐ Yes - short term condition (lasting less than six months)
- ☐ Yes - long term condition (lasting more than six months)

**12. Please provide us with the first half of your postcode
(e.g. if your postcode is EG1 2BC – write in ‘EG1’)**

Thank you for taking the time to complete this questionnaire – we greatly value your feedback.

Text for EV Study webpage on NYCC website:

About the strategy

We are committed to reducing our carbon emissions by accelerating the shift from petrol and diesel to electric vehicles (EVs). To allow this shift over time, we need facilities to allow drivers to charge their EVs easily and conveniently.

A public charging network is needed for those without access to charging at home or work. NYCC is therefore delivering a strategy to help overcome barriers and support development of a charging network.

The strategy builds upon the EV Charge Point Deployment Study we commissioned WSP (engineering consultants) to produce in 2020. The study identified measures and recommendations that NYCC, and the districts, boroughs, and national park authorities, could take to overcome barriers.

OUR VISION: *A decarbonised North Yorkshire where zero emission mobility is accessible and convenient to all, recognising the unique rural nature of the county, improving quality of place through better local air quality and health. A comprehensive network of electric charge points will support the uptake of electric vehicles for residents, visitors and businesses over the next 10 years, accelerating the transition to zero emission vehicles across North Yorkshire bringing new skills and investment to the local economy.*

Our key objectives

1. Provide a comprehensive, convenient, and accessible network of EV charging points across the whole county.
2. Ensure all residents have access to EV charge points, including those with on-street parking.
3. Ensure commuters within North Yorkshire have access to EV charge points on their routes to work.
4. Allow all visitors to adequately charge their electric vehicle at tourist sites in the region.
5. Deliver zero emission vehicles for use by NYCC.
6. Support and encourage businesses to switch to zero emission vehicles and roll out EV charge points.
7. Ensure those who do not immediately switch to an Electric Vehicle are still supported, by providing them with the facilities and awareness to make the change when they are ready.

The strategy sets out how many public EV charge points will be needed by 2030 to support the increased EV use across the region. It also sets out where the most demand is expected to be. It is forecast that by 2030, a total of 3,161 public EV charging points will be needed, consisting of 2,734 fast chargers and 427 of the faster 'rapid chargers'.

Our proposed measures (actions)

We have developed 10 EV actions, which are priorities to help us meet our vision and key objectives. These key actions, what we are proposing to do and why they are needed, are detailed below. We would like your feedback to help shape the rollout of EV charging

infrastructure and policy across the county. So please read the information below on the 'EV Actions' and have your say.

How to have your say...

Please take just 10 minutes to complete our quick and easy feedback questionnaire. Share your views on the proposed actions and tell us what you think about the rollout of EVs and what you feel are the key challenges to EV use. Just follow the link below:



ACTION 1: ACCELERATE THE ROLLOUT OF ELECTRIC VEHICLE CHARGE POINTS



Why is this action needed?




Many drivers will rely on public charge points in the future, including those with on-street parking at home, visitors to the region and those topping up during a journey.



The private sector will install most chargers, but there will not be enough in areas that are less attractive to the businesses who operate chargers (the private sector). Here the public sector (NYCC) will need to deliver EV charging points to ensure a fair spread across the county.



What we are proposing to do...

1. Install on and off-street chargers in areas not served by the private sector provision to ensure EV charging is fairly distributed across North Yorkshire.
2. Install a mix of fast and rapid chargers to meet the needs of different types of EV drivers.
3. Plan a network of EV chargers across the county that aims to ensure that any resident without access to private off-street charging is within 10 minutes' walk of a public EV charge point.
4. Seek government funding and commercial partnerships to minimise cost to NYCC.

	<p>ACTION 2: DELIVERING RURAL ELECTRIC VEHICLE CHARGING CONNECTIVITY</p> <p>Why is this action needed? North Yorkshire is a rural county with a sparsely distributed population. Full coverage of EV charge points across these areas is critical to reduce range anxiety and serve those living, visiting or travelling through these areas.</p> <p>The private sector will install most chargers, but there will not be enough in areas that are less attractive to the businesses who operate chargers (the private sector). Here the public sector (NYCC) will need to deliver EV charging points to ensure a fair spread across the county.</p> <p>What we are proposing to do...</p> <ol style="list-style-type: none"> 1. Ensure coverage of EV chargers in rural areas and appropriate EV charge point provision at rural locations that cater for long travel distances. 2. Lead funding bids and use rural character as a unique selling point for unlocking funding. 3. Work in partnership with the local Power Network Operator to ensure alignment with business planning for upgrades. 4. Encourage innovative solutions for EV charging infrastructure, such as combining local generation with renewables and battery storage.
	<p>ACTION 3: SUPPORTING RESIDENTS CHARGING EVS PARKED ON-STREET</p> <p>Why is this action needed? Whilst North Yorkshire is predominantly rural, the county also has areas of terraced housing, historic buildings, flats, and other properties without off-street parking (21% of households). Being able to charge an EV cheaply and conveniently at home is a key consideration in switching to an EV.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> 1. Take a proactive approach to delivering charging points, targeted at areas of demand for on-street EV charging, achieving a good base level of coverage, where all residents who need it have convenient access to a public charger. This will include: <ol style="list-style-type: none"> a. Residents' charging hubs in nearby car parks, featuring rapid chargers where there are gaps in the privately funded network and supporting amenities are in place. b. On-street chargers. 2. Investigate the feasibility of allowing trailing cables and installing cable channels as short-term measures for those charging an EV parked on street from home. 3. Establish a user-friendly website to invite expressions of interest from residents on potential locations for EV charge points to better understand local demand.

	<ol style="list-style-type: none"> Put together a strong case for investment from the Office for Zero Emission Vehicles through the Local EV Infrastructure fund. Engage with the market to ensure our approach attracts the best tenders from potential charge point operators, who will work as long-term partners with local authorities, and in the best interests of residents.
	<p>ACTION 4: PROMOTING BEST PRACTICE DESIGN FOR EV CHARGE POINTS</p> <p>Why is this action needed? Low quality public charge point provision means drivers are not confident they can charge when needed, which is a barrier to EV uptake. NYCC will develop guidance which draws on best practice from elsewhere, refined to suit our local needs.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> Develop NYCC guidance on key design principles, specification, and steps to building an EV charge point network. Create a distinctive NYCC EV charging brand.
	<p>ACTION 5: FOSTERING COLLABORATIVE WORKING AND BUILDING IN-HOUSE RESOURCES AND SKILLS</p> <p>Why is this action needed? NYCC is committed to ensuring that we have the expertise within the council needed to make investment decisions in EV infrastructure rollout in what is a fast-moving landscape. The Local Government Reorganisation (in effect from 2023) provides an opportunity to pool existing talent and bring together our EV skills, knowledge and experience from across NYCC and the districts, boroughs and National Park authorities.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> Audit the teams that already exist and where skills are located to ensure resources are best used. Introduce a dedicated EV Lead Officer role to coordinate EV programmes, groups, and resources. Expand the NYCC internal working group to include EV officers from each authority, to share knowledge and to develop standards. Engage with rural landowners, parish councils and town councils to minimise knowledge gap and encourage EV charge point investment.
	<p>ACTION 6: ENSURING VISITORS CAN CHARGE AT TOURIST HOTSPOTS</p> <p>Why is this action needed? Tourism is key for North Yorkshire's economy, and additional traffic comes to the area during the peak seasons. In years to come, it is expected that more of these tourists will be driving EVs. As such, it is important for the region to have reliable and comprehensive charge points at key destinations to serve visitors to the region and cope with additional demand during peak season. This includes the</p>

	<p>potential impact on residents using public chargers when there is increased demand by tourists.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> 1. Ensure coverage of EV charging infrastructure in tourism hot spots, providing the right speed of charger that serve tourists needs depending on the location. Seek to secure grants for hard-to-reach areas, working with Coastal Tourism Advisory Board. 2. Work with hospitality industry and tourist attractions, as well as small business advisory groups, providing advice on the installation of EV charge points on their premises. 3. Install EV charge points in prominent positions with universally recognisable designs that are easy to locate by tourists.
	<p>ACTION 7: DECARBONISING THE COUNCIL'S VEHICLE FLEET</p> <p>Why is this action needed? To accelerate the uptake of EVs across North Yorkshire, NYCC will lead by example by transitioning our fleet to zero emission vehicles, where possible, by 2030. While challenging, this transition will send a strong message of confidence in EVs to the community, encouraging people to purchase an EV themselves.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> 1. Undertake comprehensive fleet review, including wider scope for streamlining the number of vehicles the council requires to meet our needs. Develop a workable plan and timescales for bringing these EVs into service? 2. Undertake a review of depots and car parks where vehicles would be charged and feasibility assessments of prioritised sites for charging infrastructure. 3. Prepare an action plan setting out the short, medium, and long-term phasing out of petrol and diesel vehicles. 4. Update procurement processes to specify EVs going forwards, introduce in a phased approach based on preceding review. Introduce requirements for EVs for Council supply chains.
	<p>ACTION 8: RAISING AWARENESS TO POSITIVELY INFLUENCE BEHAVIOURS</p> <p>Why is this action needed? As a relatively new technology, one key barrier to EV adoption is lack of understanding about the benefits of EV ownership and the practicalities of running an EV. While some may proactively seek information about the new technology, other drivers may be more inclined to continue with a petrol or diesel car they know and understand. There is a need to better inform everyone about the positives of choosing an EV.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> 1. Carry out a marketing campaign promoting the benefits of EVs and 'myth busting'.

	<ol style="list-style-type: none"> Expand the NYCC EV website to become a valuable resource for all residents wishing to switch to EVs. Appoint a local 'EV Champion' to promote the use of EVs in North Yorkshire.
	<p>ACTION 9: PROMOTING STANDARDS FOR NEW DEVELOPMENT</p> <p>Why is this action needed? New developers have a key role to play in including EV charge points as part of new developments. This ensures that residents of developments can charge their EV when at home.</p> <p>From June 2022, EV charge points in new developments will be legally required. However, NYCC plans to update local policies to exceed these standards, particularly for the delivery of EV charge points in non-residential new developments and major renovations. The Local Government Reorganisation will bring all the local districts, boroughs and National Park Authorities under one new council with one planning policy framework.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> Develop more ambitious, common EV charging infrastructure standards across North Yorkshire for some non-residential land uses. Build up internal awareness and understanding of the amended Building Regulations for delivering EV charge points. Work with developers and landowners to interpret and apply new building regulations and planning policies.
	<p>ACTION 10: SUPPORTING BUSINESSES WITH EV CHARGE POINT ROLLOUT</p> <p>Why is this action needed? Commuting to a place of work, travelling for business and the use of fleet vehicles account for a large proportion of vehicle miles. As such, businesses have a particular role to play in both supporting and promoting the transition to EVs.</p> <p>Companies operating fleet vehicles can move to EVs and can also influence their supply chains and support their employees to move to EVs by providing charging points or incentives such as salary sacrifice schemes. Whilst NYCC cannot directly place charging infrastructure in local businesses, we recognise our important role in supporting them with guidance and advice.</p> <p>What are we proposing to do?</p> <ol style="list-style-type: none"> Supporting businesses with guidance, advice, and information. This may include sign posting and promoting available funding from the likes of the Office for Zero Emission Vehicles (OZEV). Hosting EV business focus events throughout the year. Investigate the scope for introducing a Right-to-Charge policy with property managers. Engage proactively with those managing business parks and retail parks. Engage with freight and logistics sector.

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	BES		
Service area	H&T		
Proposal being screened	Electric Vehicle Rollout Strategy for Public Consultation		
Officer(s) carrying out screening	Keisha Moore		
What are you proposing to do?	<ul style="list-style-type: none"> Launch a public consultation regarding the Electric Vehicle Rollout Strategy. 		
Why are you proposing this? What are the desired outcomes?	<ul style="list-style-type: none"> To seek views regarding where barriers and challenges to EV uptake exist (to confirm our assumptions in this strategy are correct) and seek opinions on the measures being proposed as part of NYCCs EV strategy to overcome them 		
Does the proposal involve a significant commitment or removal of resources? Please give details.	No, at this stage the bid for funding does not require significant commitment or removal of resources..		
Impact on people with any of the following protected characteristics as defined by the Equality Act 2010, or NYCC's additional agreed characteristics As part of this assessment, please consider the following questions: <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 Equality rep 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	
NYCC additional characteristics			

People in rural areas		X	
People on a low income		X	
Carer (unpaid family or friend)		X	
Does the proposal relate to an area where there are known inequalities/probable impacts (e.g. disabled people's access to public transport)? Please give details.	No.		
Will the proposal have a significant effect on how other organisations operate? (e.g. 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	It is the view of officers that at this stage the recommendations do not have an adverse impact on any of the protected characteristics identified in the Equalities Act 2010		
Signed (Assistant Director or equivalent)	<i>Barrie Mason</i>		
Date	31/10/2022		



Climate change impact assessment

The purpose of this assessment is to help us understand the likely impacts of our decisions on the environment of North Yorkshire and on our aspiration to achieve net carbon neutrality by 2030, or as close to that date as possible. The intention is to mitigate negative effects and identify projects which will have positive effects.

This document should be completed in consultation with the supporting guidance. The final document will be published as part of the decision making process and should be written in Plain English.

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

Please note: You may not need to undertake this assessment if your proposal will be subject to any of the following:

Planning Permission
Environmental Impact Assessment
Strategic Environmental Assessment

However, you will still need to summarise your findings in in the summary section of the form below.

Please contact climatechange@northyorks.gov.uk for advice.

Title of proposal	Electric Vehicle Rollout Strategy for Public Consultation
Brief description of proposal	Launch a public consultation regarding the Electric Vehicle Rollout Strategy.
Directorate	BES
Service area	Highways and Transportation
Lead officer	Keisha Moore
Names and roles of other people involved in carrying out the impact assessment	
Date impact assessment started	18/10/2022

Options appraisal

Were any other options considered in trying to achieve the aim of this project? If so, please give brief details and explain why alternative options were not progressed.

An in person meeting was considered as an alternative to an online proposal, however, this was not felt relevant or proportionate and more people could be reached, without a significant impact on the climate, by doing the survey and promotion online.

What impact will this proposal have on council budgets? Will it be cost neutral, have increased cost or reduce costs?

Please explain briefly why this will be the result, detailing estimated savings or costs where this is possible.

At this stage the public consultation does not require significant commitment or removal of resources. There are no direct financial implications arising from this consultation – the project development fees for the EV Strategy are being funded from already approved budgets.

How will this proposal impact on the environment?					Explain why will it have this effect and over what timescale?	Explain how you plan to mitigate any negative impacts.	Explain how you plan to improve any positive outcomes as far as possible.
N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.		Positive impact (Place a X in the box below where	No impact (Place a X in the box below where	Negative impact (Place a X in the box below where	Where possible/relevant please include:		
					<ul style="list-style-type: none"> • Changes over and above business as usual • Evidence or measurement of effect • Figures for CO₂e • Links to relevant documents 		
Minimise greenhouse gas emissions e.g. reducing emissions from travel, increasing energy efficiencies etc.	Emissions from travel		*				
	Emissions from construction		*				
	Emissions from running of buildings		*				
	Other		*				
Minimise waste : Reduce, reuse, recycle and compost e.g. reducing use of single use plastic			*				
Reduce water consumption			*				
Minimise pollution (including air, land, water, light and noise)			*				

<p>How will this proposal impact on the environment?</p> <p>N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</p>	<p>Positive impact (Place a X in the box below where</p>	<p>No impact (Place a X in the box below where</p>	<p>Negative impact (Place a X in the box below where</p>	<p>Explain why will it have this effect and over what timescale?</p> <p>Where possible/relevant please include:</p> <ul style="list-style-type: none"> • Changes over and above business as usual • Evidence or measurement of effect • Figures for CO₂e • Links to relevant documents 	<p>Explain how you plan to mitigate any negative impacts.</p>	<p>Explain how you plan to improve any positive outcomes as far as possible.</p>
<p>Ensure resilience to the effects of climate change e.g. reducing flood risk, mitigating effects of drier, hotter summers</p>		<p>*</p>				
<p>Enhance conservation and wildlife</p>		<p>*</p>				
<p>Safeguard the distinctive characteristics, features and special qualities of North Yorkshire's landscape</p>		<p>*</p>				
<p>Other (please state below)</p>		<p>*</p>				

Are there any recognised good practice environmental standards in relation to this proposal? If so, please detail how this proposal meets those standards.

N/A

Summary Summarise the findings of your impact assessment, including impacts, the recommendation in relation to addressing impacts, including any legal advice, and next steps. This summary should be used as part of the report to the decision maker.

Accepting the recommendation to launch a public consultation online will have no significant impact. Prior to construction of any EVCPs, a report will be written, which is the intended outcome of this strategy, and an associated climate change impact assessment completed. The intended overall outcome is to have a positive impact by encouraging and facilitating greater use of electric vehicles.

Sign off section

This climate change impact assessment was completed by:

Name	Keisha Moore
Job title	Transport Planning Officer
Service area	Highways and Transportation
Directorate	BES
Signature	Keisha Moore
Completion date	18/10/2022

Authorised by relevant Assistant Director (signature): Barrie Mason

Date: 31.10.22