Meeting:	**Economy and Place Scrutiny Committee Report**
Meeting date:	25/04/2024
Report of:	Director of Environment Transport and Planning
Portfolio of:	Executive Member for Economy and Transport

Scrutiny Report: Electric Vehicle Gully Charging Report

Summary

1. City of York Council ("the Council") was a pioneer in providing public Electric Vehicle (EV) charging infrastructure, with the first chargepoints installed in 2013.

2. In 2020 the Council was one of the first to adopt a Public EV Charging Strategy ("the Strategy") which set out the Council's plans up to 2025. This once again positioned York as a forerunner in the provision of public charging infrastructure.

3. The Strategy is supported by a confirmed budget with external funding providing £3,150,000 and a Council contribution of £1,000,000. This is enabling the delivery of brand new facilities in strategic locations with facilities including Fast, Rapid, and Ultra Rapid chargers.

4. The Strategy considers a number of user groups, with a focus on residents without off-street parking. In line with Government guidance we aim to provide Fast chargepoints within a 10 minute walk (stretch target of 20 minutes) of significant areas of residential properties without off-street parking. We also aim to provide Rapid and Ultra Rapid charging facilities within a 10 minute drive. As shown is Annex A current and planned sites provide total coverage of residential areas within the outer ring road/A1237.

5. The combination of ten years of experience, significant success in attracting external funding, the early publication of a Strategy and the track record of having delivered significant quantities of Fast, Rapid and award winning Ultra Rapid facilities, has positioned York as an exemplar in this field with regular requests for support from other local authorities interested in following the Council's approach.

6. The Council's pioneering work has been recognised by Energy Saving Trust, Cenex, the LEVI Support Body and OZEV with the Council being an active member of OZEV working groups.

7. Department for Transport Data (January 2024) shows York has more than twice the density of chargers/chargepoints as the regional average.

8. In March 2024 a research study conducted by the Independent newspaper (Independent Advisor Car Insurance) concluded that York is the 4th best city in the UK for EV ownership, largely due to the public charging offer. The same study found that York is the number 1 city in the North of England for EV ownership.

9. The Council has followed the trials of gully charging solutions for residents who cannot charge at home with interest. In particular the Council has engaged with Oxford City Council on several occasions to understand the applicability of its Gul-e system in York.

10. Economy and Place Scrutiny Committee has requested a report into the deployment of gully charging in York.

11. This report summaries the existing benefits and issues with such systems.

12. This report sets out the reasons why gully charging is not currently a practical solution for York's target terrace street areas and identifies the areas that would need to be addressed to enable this option.

Recommendations

13. The Economy and Place Scrutiny Committee is asked to:

    - Note the work undertaken to provide public EV charging facilities.

- Request that officers continue to engage with other Local Authorities trialling gully systems.
- Request that officers consider gully charging options as part of the development of the next public charging strategy which will be published in 2025, subject to the current barriers to adoption being addressed.

Reason: to help develop the next Public Electric Vehicle Charging Strategy

Background

14. The Council first provided public EV charging faculties in 2013. Since then the EV market has developed significantly. In recognition of this, in 2019 the Council developed one of the first Public EV Charging Strategies with support from the Energy Saving Trust. The Strategy was adopted in March 2020 and runs to 2025.

15. The adoption of a near term, delivery focussed Strategy has enabled the Council to maintain and strengthen its leading position in this field. It has also proved crucial in both the efficient delivery of infrastructure and the ability to attract external funding. This has led to over 75% of all funding being from external sources. This represents exceptional value for the Council and reflects first mover advantage.

16. This is reflected in Department for Transport data which shows that York has significantly higher rates of charger and chargepoint provision than national and regional averages.

17. Data published in January 2024 shows that York has 104 chargers/chargepoints per 100,000 people. This compares to 46 chargers/chargepoints per 100,000 people for the Yorkshire region and 73 chargers/chargepoints per 100,000 people for the UK as a whole on average In other words York has more than double the density of chargers than the Yorkshire regional average.

18. York's leading position was further highlighted in March 2024 when a research study conducted by the Independent newspaper (Independent Advisor Car Insurance) concluded that York is the 4th best city in the UK for EV's. 'York secures fourth place for EV readiness earning an impressive final score of 7.65 out of ten, largely due to its excellent charger availability.'

19. In addition to placing in the top 4 cities in the UK, York was number 1 in the North of England for EV ownership. It is noteworthy that the 3 worst performing cities are all in the North of England, demonstrating further how York has bucked the trend.

20. As set out in the Strategy, day to day running costs of the Network are covered by users via a user tariff. York's 'own and operate' model enables 100% of revenue to be retained by the Council and provides complete control over tariff setting. This approach provides a fair balance which ensures that the costs of running the Network are borne by users whilst keeping tariffs as low as possible.

21. The York EV Network provides three complementary tiers of charging offer; 1. Fast chargepoints (7kW) equivalent to a domestic chargepoint; intended for long dwell times including overnight charging 2. Distributed Rapid chargers (50kW) with a maximum stay of 90 minutes 3. HyperHubs, dedicated charging hubs with Rapid and Ultra Rapid chargers (175kW) with a maximum stay of 90 minutes.

22. The Network is designed to support multiple user groups, including commuters, visitors, through traffic, residents with and residents without off-street parking.

23. For residents without off-street parking the focus is significant areas of terraced housing streets. We aim to provide Fast chargepoints within a 10 minute walk of these areas, with a stretch target of 20 minutes. We aim to provide Rapid chargers within a 10 minute drive, and aim to provide a HyperHub within a 10 minute drive. The delivery of the 2020 – 2025 Strategy is delivering against these aims.

24. When choosing to use overnight Fast chargepoints, residents can apply for the Minster Badge which for EV users allows free overnight parking whilst charging. This means that residents who prefer to Fast charge overnight do not face additional parking fees that would not apply if they could charge at home.

25. The Strategy has a focus on residents without off-street parking, as it is not possible to charge their EV(s) at home. It has been a longstanding requirement of Government subsidy for residential chargepoints, that off-street parking is present. However on 18th March 2024 Government announced an extension of the electric

vehicle chargepoint grant to include on-street settings under specific circumstances. This funding is initially available for 1 year.

26. The grant can only be used towards the cost of chargepoint purchase and installation (up to £350) and is not to be used for cross pavement charging solutions. Despite this, the installation of cross pavement infrastructure is required in advance of an application.

27. The grant is therefore only applicable in areas that permit cross pavement infrastructure. This currently only applies in a small number of local authorities that are undertaking small scale trials. This does not currently include York.

28. Further to this, the Council (as local highway authority for York) does not allow charging cables to cross Highway land where the cable crosses the footway or enters the running lane of the roadway . Where space is available to avoid crossing footway and where dedicated charging bays can be created that do not sit within the running lane, designs will be considered.

29. Independent advice has been sought from the Energy Saving Trust, and we have received confirmation that where off-street parking is not available, public charging infrastructure is the most appropriate form of EV charging infrastructure provision.

30. Due to the nature of the built environment in York, it is not possible to provide public charging infrastructure on terraced streets, but it is possible to provide facilities within 10 – 20 minutes walk, meeting Government guidance.

31. As part of the review of public provision we have investigated lamp post charging options. Unfortunately in many cases the target streets have no street lamp columns. In any event even if street lamp columns were available, in common with all charging options there would still be no space to create charging bays that do not sit within the running lane of the roadway, and therefore no cable management within the roadway. As a result this is not an option.

Consultation

32. The development of the Public EV Charging Strategy (2020 – 2025) was supported by the independent expert body the Energy Saving Trust (EST). EST provided independent guidance on the approach

taken drawn from its extensive experience of EV charging solutions across the UK. The Council's Strategy was the first to include EST's logo in recognition of this process.

Options

33. Economy and Place Scrutiny Committee has requested further information on gully charging solutions which provide access from a private connection (i.e. a residential electrical supply, rather than a public supply point).

Analysis

34. Gully charging is currently only used within trials.

35. The largest trial has been conducted by Oxford City Council using its own proprietary Gul-e system and the Council has followed these trials with interest. It should be noted that alternative gully systems are available. Discussions with Oxford City Council have highlighted that some of the systems being marketed do not meet minimum safety standards and are considered dangerous. For these reasons Oxford City Council will only allow selected gully systems to be deployed.

36. The Oxford Gul-e trial started in 2020. To date 26 gullies have been deployed.

37. Plans are being developed to extend the pilot to a further 200 properties subject to approval. The system (and alternatives) are also now being trialled by a number of other Local Authorities.

Current limitations of gully systems

Very limited applicability in York

38. Oxford City Council has confirmed that the Gul-e system cannot be used when the property fronts directly onto footway. This means that the system cannot be deployed in many of the target terrace street areas of York. Unfortunately this currently severely limits the usefulness of gully systems in York.

IET electrical regulations

39. The Institution of Engineering and Technology (IET) wiring regulations (requirements for electrical installations) are required to be met when installing a home chargepoint. In the case of on-street, this can be more difficult to achieve. The prevailing approach in trial areas is to not provide a marked charging bay/area which makes the process of assessing underground and overground risks more difficult. This may mean that some providers are not prepared to install which may limit the resident's choice of chargepoint.

40. The relevant Highways Authority will be responsible for verifying that compliant chargepoints are fitted and remain so throughout the lifetime of the gully. The resident will be responsible for ensuring chargepoint compliance and this will generally be documented via an annual licence agreement.

Not suited to areas of high parking demand

41. Guidance from trial areas confirms that gully solutions should not be deployed in areas of high parking demand. This is because dedicated parking bays are not provided which makes it difficult for residents to park in the correct position relative to the gully increasing the risk of dangerous cable routes.

Trip hazard in the Highway

42. Gully charging solutions have no cable management system in the highway. This means that cables can be placed in dangerous locations, or can be moved after deployment. There are trip hazard implications for all groups, but in particular the nature of transient cable usage has additional implications for the visually impaired as cable deployment and position will change on a daily basis.

43. Feedback from trials indicates that no specific work has been undertaken on this issue to date.

Cost for resident

Initial cost

44. Representative cost for installed compliant gully systems are approximately £1,000. This relates to approximately £500 to £600 for the gully and approximately £500 for installation.

45. Cheaper products are being marketed but feedback from trial areas confirms that these do not meet current electrical safety standards and are not permitted.

46. The upper end of cost estimates is approximately £3,000 +VAT for one commercially available product.

47. In addition to the gully cost, residents will also require a home chargepoint. Installed costs for compliant chargepoints are estimated to be approximately £900 - £1,000.

48. In total this means that the representative initial cost to a resident is approximately £2,000. In the most expensive cases the upper estimate is approximately £4,000 to £4,500.

49. Finally, on-street residential chargepoints uniquely require planning permission. Residents will also be liable for the cost of gaining planning permission prior to installation and also for any costs incurred in complying with the conditions of such planning permission.

50. On the 18th March 2024, Government announced the extension of the home electric vehicle chargepoint grant to include (under specific circumstances) on-street settings. The funding is confirmed for one year only, up to 31st March 2025. This is the first time since the grant was introduced in 2014 that on-street applications have been considered, as previously off-street parking has been a requirement/condition of grant funding.

51. The additional requirements for on-street applications are ‘adequate on-street parking’ is available (to be assessed by the local highway authority), and a cross pavement charging solution must be installed prior to application. The cross pavement charging solution must also be approved by the local highway authority in advance. No installations are permitted without local highway authority permission (nor without any necessary planning permission).

52. The grant does not provide any financial assistance towards the costs of the cross pavement charging solution.

Annual cost

53. In addition to the initial cost, in relation to Local Authorities which permit the installation of chargepoint gullies (which the Council does

not currently), payment of an annual licence fee by the resident/licensee to the local highway authority is necessary. This provides funding for footway repair (which is affected by gully installations), repairs to the gully itself, and provides the legal documentation that sets out the requirements around chargepoint compliance, ownership of the gully (which remains with the local highway authority), liability, and any future responsibilities.

54. Feedback from trials indicates that this fee is likely to be between approximately £80 to £100 per year.

Potential additional costs

55. The annual licence conditions raise questions over the process for when the initial applicant no longer needs the gully. This could occur when the initial applicant moves home, or if they no longer want a gully.

56. At this point the ongoing liability costs to the Council remain, which means that either a new applicant is required to take on the annual licence or the gully would need to be removed. The cost for removal may fall on the initial applicant in this case. It is expected that this would be approximately £500. However, if a new resident does not take on the annual licence, the Council could incur costs seeking to enforce the obligations of the initial applicant, and costs to step-in and carry out any unperformed obligations may be unrecoverable. Ongoing monitoring would need to be resourced.

Potential savings for resident

57. The main benefit of using a private electrical connection is that the resident can choose their own electricity supplier and tariff. This includes the ability to access EV specific tariffs. It should be noted that some EV tariffs require a specific chargepoint to be installed which may not be possible.

58. EV specific tariffs provide discounted rates generally for a 5 hour period overnight. The tariff for the remainder of the day is increased. This means that the saving is very sensitive to the proportion of electricity used during the higher tariff period compared to during the overnight discount period.

59. Due to the upfront costs and licence fees associated with gully systems it is anticipated that with an EV specific tariff, it will take between 4 and 6 years on average to break even compared to the

cost of public Fast charging.

60. As residents will be responsible for repair, maintence and replacement costs for their chargepoint any costs incurred will extend the duration of the ‘payback period’ (the length of time taken for the resident to ‘recoup’ the initial outlay and ongoing costs as opposed to costs that would be incurred if the resident instead utilised public Fast charging points). It is therefore likely that on average residents will be better off financially using the public network than investing in a home charging solution for a significant period of time.

61. Therefore gully solutions are not recommended for residents who are considering moving home within 5 to 10 years of installation.

62. For residents who do not choose an EV tariff the payback period will be significantly longer.

Next steps

63. Until the above issues have been addressed, it is recommended that the Council continues to evaluate gully charging solutions by continuing to engage with trial areas and expert bodies.

64. Energy Saving Trust has been engaged to deliver a series of Officer workshops to provide independent expert advice on this matter.

65. This work will inform the role of gully solutions in the next EV public charging strategy that will be published in 2025. If the current issues can be resolved by providers, gully options will be considered.

66. Some of the issues to be considered during the review suggested in this report will include legal matters relating to any use of the footpath for gully charging and the associated need for licensing and ongoing monitoring arrangements by the Council.

Council Plan

67. The provision of public charging supports the adoption of plug-in vehicles which support core council commitment around Environment and Climate Change. But the challenge is greater than just a transition to electric vehicles. Whilst noting that private vehicles are at the bottom of the transport hierarchy, the York Public

EV Charging Strategy has been developed to respect wider transport objectives and avoid counter productive measures.

Implications

Equalities

68. The Council needs to take into account the Public Sector Equality Duty under Section 149 of the Equality Act 2010 (to have due regard to the need to eliminate discrimination, harassment, victimisation and any other prohibited conduct; advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and foster good relations between persons who share a relevant protected characteristic and persons who do not share it in the exercise of a public authority's functions).

69. Equalities Impact Assessments will be carried out as and when appropriate as gulley systems may remove the cable from the footway but it can be an obstacle in the carriage way for all users.

Legal

70. Property/Highways

71. The Council has a legal duty to ensure the safety and use of the highway in accordance with the Highways Act 1980 and pending future review, there is no current proposal to permit the laying of cable infrastructure across footpaths. If any cables are placed without permission, that action will operate as an unauthorised use of the highway.

72. In relation to the proposed Hyperhubs 4 referred to in this report, please note that in addition to the successful obtaining of planning permission, there are other title matters which will need proactive resolution by Council officers, some of which require third party consents.

73. Procurement and Contract

74. The supply of goods and installation services will be procured in accordance with (i) the provision of the Public Contracts Regulations 2015, the Concession Contracts Regulations 2016 and/or the Procurement Act 2023 (due to come into force in October 2024) (as may be applicable) and (ii) the Council's Contract Procedure Rules.

75. Funding Agreement(s)

76. Any external funding already awarded is likely to be predicated on the Council proceeding with the project as described in its funding application(s). A change in scope may mean a change request may need to be drafted and submitted to the funding body to vary the existing application, if that was permitted.

77. Where any additional external funding is applied for and awarded, the funding agreements will be reviewed by Legal Services.

Risk Management

There are no Risk Management issues.

Wards Impacted

All wards

Contact details

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Background papers

Public EV Charging Strategy (2020 – 2025)
https://www.york.gov.uk/downloads/file/6264/city-of-york-public-ev-charging-strategy

Annexes

Annex A - Maps showing infrastructure delivered since 2020, future HyperHub sites, 10 minute walk/drive coverage and areas of significant terrace housing.

Annex B – example images of gully systems currently being trialled in England; Gul-e, Kerbo, Pavecross.