

Committee(s): Port Health and Environmental Services – For information Planning and Transportation – for information	Date(s): 26 th November 2019 12 th December 2019
Subject: Electric Vehicle Charging Plan – Interim update	Public
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Summary

Proposal 30 of the City of London Transport Strategy includes a commitment to produce an Electric Vehicle Charging Action Plan, which will identify how many charge points, including charging hubs, are required up to 2022, as well as longer-term forecasts.

This report provides an update on progress towards completing the Action Plan, the first stage of analysis of electric vehicle (EV) charging requirements and details of next steps. The Action Plan period has been extended to 2025 to align with the Mayor of London’s Electric Vehicle Infrastructure Taskforce. The final Action Plan will be brought to these committees in March 2020.

Members are asked to:

- Note the report.

Main Report

Background

1. Proposal 30 of Transport Strategy includes a commitment to produce an Electric Vehicle Action Plan. This will identify how many charge points, including charging hubs, are required up to 2022, as well as longer-term forecasts. The Action Plan period has been extended to 2025 to align with the Mayor of London’s EV Infrastructure Taskforce, which is working towards targets for wider zero emission zones across London.
2. The commitment to produce an action plan was partly as result of feedback during the consultation on the Transport Strategy, noting the need for EV infrastructure/charging facilities to support the transition to electric vehicles and to support the introduction of local zero emission zones.
3. Members of the PHES and P&T Committees have also raised concerns that we should be making more progress to deliver adequate EV charging facilities. Additionally, the GLA/Mayor of London commissioned a broad

ranging assessment for London to identify barriers to delivery and assess the infrastructure requirements for London as a whole.

4. This piece of work is looking at provision to 2025. This is the timeframe proposed by the GLA/TfL for introducing a central London zero emission zone. The City has also committed to supporting this and introducing local zero emission zones in two locations by 2022.
5. We have commissioned the Energy Savings Trust to look in more detail at the requirements for the Square Mile, looking at numbers of charge points for each user category and type of charge point. They have been working with TfL on demand forecasting and have good knowledge across the different sectors involved in the EV market.

Current Position - Progress on existing plans.

6. Progress has been made on new charging infrastructure in the last 18 months, with new charge points in place and others into the process of being delivered.
 - Noble street taxi rapid charge point has been in operation since May 2019. By October use of this has been recorded at averaging at 12 hours a day. This is taxi dedicated site funded by TfL subsidy.
 - At Billingsgate Market a rapid charge point is being installed, for commercial operators on its site. This is being provided without any subsidy and will be open access to any user. This should be in place within the current financial year.
 - Smithfield Market is increasing the number of standard chargers (up to 12) in its car park, primarily for traders but also open to general public / residents.
 - At Walbrook Wharf installation is in progress to provide for the Corporation's refuse collection contractor.
 - Corporate fleet use is being provided for by installation this year at Guildhall, the Barbican Centre, Baynard Parks Service depot and the Cemetery and Crematorium.
 - Baynard House car park has a proposal for up to 10 rapid charge points. A concessionaire has successfully bid for 6 charge points. A new electricity substation will enable further charge points at this location in the future if demand requires it. Work is progressing on the scheme in partnership with TfL, for installation in Spring 2020.
7. 50 standard public access charge points are already available in the City's public car parks, and 22 charge points were installed exclusively for residents in the Barbican in 2018

Future Requirements – Demand analysis.

The Mayor’s Electric Vehicle Infrastructure Taskforce

8. A comprehensive piece of work has been commissioned by the Mayor’s office, which is designed to guide public and private sector and enable delivery where appropriate. An exercise in predicting requirements to 2025 has been carried out considering rates of conversion to EV and the targets the Mayor has set to support the transition to Electric Vehicles. Availability of grants and practical support is included in a comprehensive approach. A link to the full document is [London electric vehicle infrastructure delivery plan](#).
9. The key findings from the work are:
 - EV driver behaviour is evolving and need to be cautious to avoid out of date technology and infrastructure in the wrong places. The modelling is key to steering delivery, using uptake forecasts and targets.
 - Requirement to have between 2,500 – 4,100 rapid charge points; 33,700 – 47,500 standard charge points across the whole of London by 2025. By the end of 2020, work is in progress for 300 rapids to be in place and 3,500 standards.
 - Evidence from the National Grid and UK Power Networks, that whilst there are capacity issues to manage in some locations, that further use of smart approach to time and ‘load’ management means that further EVs can be supported in London.
 - Strategic and demand led approach to further ‘standard’ chargers, rather than ‘desire’ led is critical, as this risks government subsidy not being spent in the optimum locations and redundant technology in place.

City of London demand forecast for EV Chargepoints.

10. Work directly with boroughs and the City is looking at identifying locations to fulfil these ambitions. Although the City of London is much smaller in area covered than other London authorities, circumstances aren’t consistent across the whole of London, and given the nature of activity for freight and taxi there is a different pattern of demand for charge points in the Square Mile. We have therefore, commissioned a piece of work by Energy Savings Trust that looks at likely requirements based on vehicle types on City streets. This will give us figures for each user type:
 - Taxi
 - Motorbike
 - Private car
 - Light goods/freight
11. Methodology has looked at using historic / future anticipated take up rates to EV for each user type and anticipated charging patterns based on industry/market expectations. We are working on analysing specific likely scenarios appropriate to City transport proposals and the specific market conditions. Future factors could have significant impacts, including:
 - ULEZ criteria transitioning to zero emission zones

- Charger technology advancing
- Vehicle model choice expanding
- Supply chain confidence
- Battery technology
- New vehicle costs
- Used market costs
- Neighbouring boroughs infrastructure provision
- Grid capacity & impact of smart charging incentives
- Local Transport Proposals to reduce vehicles on City Streets by 25% by 2030.

12. The final report will include recommendations on both public and private provision - public access, City's own fleet, commercial depot, such as last mile delivery hubs, and private loading areas. There are likely to be opportunities to provide for multi-purpose users, such as own fleet sites also being available to contractors during visits to car parks and other shared use potential.

13. Some of this will include working with TfL and UKPN and understanding network capacity constraints as well as demand and managing that positively. Mechanisms are available to manage load requirements on the power network, and these can be explored at specific locations.

Next Steps - Further analysis of market demand / potential.

14. Work is continuing now to refine the recommendations setting out likely scenarios for the City based on Transport Proposals and a strategic approach to meeting appropriate demand.

15. We will engage directly with residents to understand demand in more detail across City DCCS estates, including working on providing an Electric Vehicle car club.

16. We have a number of potential sites which have already been identified by user groups (taxi drivers and residents), we will look at these sites in a bit more detail. Discussions with Business Improvement Districts has also commenced.

17. Identify new locations at which new charge points are appropriate within the next 5 years. We will work closely with neighbour boroughs to ensure that we are taking a strategic approach to locations; a number of new sites have recently been submitted to TfL for grant funding under the Rapids programme.

18. Sites proposed will be in line with the adopted policy preference for charge points to be within car parks, for all user types, and on the highway with exception.

19. Engage with UKPN, and National Grid if appropriate, understand any work required on managing network capacity issues.

Residents requirements.

20. We are working with the Department of Children and Community Services to commission a residents' survey and identify in more detail local demand and a plan for that to include residents EV car club. This should be conducted by the end of the calendar year. We will then need to tender for a provider.
21. The Barbican already has a number of charge points thanks to the subsidised introduction in 2018. As this is a private site there are limits on TfL grants to put any further charge points in place. The Barbican estate office is looking into options to determine the preferred option to provide more charge points and what subsidies might be available. It is intended that the Barbican will be included in EV car club.

Enabling and providing EV charge points.

22. We propose to identify specific sites but part of the role will be to enable rather than the Corporation be the specific provider as there is a limit to grants and public funding available. There is a role of enabling to allow private or market provision which will be defined more in the final Action Plan.

Corporate & Strategic Implications

23. Air quality is identified as Corporate Risk 21, this area of work and the Action Plan will support the transition to electric vehicles and therefore contribute positively towards cleaner air. The project also contributes towards corporate objectives, supporting outcome 11 We have clean air, land and water and a thriving and sustainable natural environment.

Financial Implications

24. At this stage the project has no direct financial implications, as it is identifying requirements. Some of the final Action Plan proposals may recommend seeking grant funding for specific sites, although commercial delivery opportunities will also be identified.

Conclusion

25. Members are asked to note progress on the demand analysis for EV requirements. Further work will be carried out to identify more specific requirements and include sites to be developed for additional charge points in the work for the EV infrastructure Action Plan.

Background Papers

1. The Mayor of London's Electric Vehicle Infrastructure Taskforce Action Plan (June 2019). [London electric vehicle infrastructure delivery plan](#).

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