

Committee(s)	Dated:
Residents' Consultation Committee – For information Barbican Residential Committee – For decision	22 May 2017 5 June 2017
Subject: Electric Vehicle Charging Points Pilot Project	Public
Report of: Director of Community and Children's Services	For Decision by Barbican Residential Committee
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Summary

1. The Barbican Residential Committee at its meeting in December 2016 asked that a Working Party be set up to look at a pilot for Electric Vehicle charging points across the Barbican Estate. The purpose of this report is obtain approval to proceed with a pilot project to install electric vehicle (EV) charging points in five selected car parks. The pilot project is being fully funded by the Low Emission Neighbourhood (LEN) project with no expenditure approval required from the Barbican Residential Committee (BRC).

Recommendation(s)

2. The Residents Consultation Committee are asked to note and comment on the Electric Vehicle Charging Points Pilot Project.
3. The Barbican Residential Committee are asked to:
 - Approve the pilot project to install electric vehicle charging points in five of the Barbican Estate car parks
 - Approve the Terms of Reference

Main Report

Background

4. The Mayor of London has awarded the City of London Corporation £990,000 over three years to implement a LEN in the Barbican and Golden Lane area. This followed a successful application for funding submitted in April 2016. The overall aim of the LEN is to improve local air quality by reducing the amount of traffic and encouraging and supporting low and zero emission vehicles in the locality. Improvements in air quality are expected both within the proposed neighbourhood and more widely across the City due to an increase in low and zero emission vehicles.
5. There has been a growing momentum behind the growth in electric and ultra-low emission vehicles (ULEVs) in the UK and particularly in London. This growth is being driven by the regulatory frameworks being introduced at

European and National levels, financial incentives being offered by government and greater public awareness of the air quality issues in urban areasⁱ.

Current Position

6. Currently it is estimated that there are at least half a dozen all EVs using the Barbican car parks on a regular basis. However there is known to be a high level of demand for EV charging points from residents based upon the number of requests already received by the Barbican Estate Office (BEO). A survey of residents undertaken in 2014 revealed that 150 residents would consider buying an EV with 22 actively wanting to. This is likely to have significantly increased in the past three years. During the next few months the BEO will be carrying out a survey to establish residents' current needs for EV charging points; whether residents intend to acquire all electric or hybrid vehicles in the near future, and their views on communal versus dedicated charging bays.
7. The Barbican Residential Committee at its meeting in December 2016 asked that a Working Party be set up to look at a pilot for Electric Vehicle charging points across the Barbican Estate. The group was tasked with reviewing the best options for providing charging infrastructure for residents with vehicles parked in the estate car parks. A proposed Terms of Reference can be found in Appendix 2.

Proposals

8. Five car parks have been identified as the most suitable for introducing charging points as part of a pilot project. The car parks are Thomas More, Cromwell Tower (02 Level), Willoughby House (01 Level) Bunyan Court and Breton House. The first step to upgrade the power distribution to these car parks to support EV charging has been completed with funding provided by the LEN project.
9. The Working Party has evaluated eight charging options (refer to EV charging point matrix in Appendix A), including wall mounted or charging post facilities, on the basis of cost, durability, and speed of charging:
 - 3 kW Type 1
 - 3.6 and 7 kW Type 2, single phase
 - 11 kW and 22 kW, three phase
 - Daisy chain up to 22 kW, three phase
 - 43 AC and 50 kW DC
10. The following two options that have been assessed as being most suitable for the estate car parks are:
 - Wall-mounted daisy chain up to 22 kW; which can charge up to four vehicles at a time within 1 - 2 hours, and
 - Wall-mounted tethered cable up to 7 kW that takes 3 to 4 hours to charge.

11. The next step is to obtain competitive quotes for the installation and maintenance of these two options.
12. The car parks will have dedicated car parking spaces for EVs. Some reallocation of parking spaces may be necessary to facilitate the charging bays.
13. The level of electricity usage will be monitored for the six months of the pilot project to determine an appropriate additional permit fee to charge future EV users. Usage of the charging points will be free for the period of the six month pilot project with all costs covered by LEN funding.
14. Following the six month pilot project a further report will be presented to Committee of the results of the monitoring and asking for a decision on whether to continue the rollout of the electric vehicle charging points.
15. LEN funding will be available to fund continued rollout of charging points up until March 2019. The Air Quality team has also applied for funding for to install an additional 50 charging points for residents from the Go Ultra Low Cities Scheme (GULCS) being run by London Councils and we are awaiting the outcome of the bid.
16. As part of the pilot project, Zip Car, who already have four bays in Barbican car parks will be offering all electric and hybrid car share options.
17. The City is also looking at options for installing rapid on-street EV charging for the new zero emission capable taxis that are being rolled out later this year.

Corporate & Strategic Implications

18. This work supports the aims and objectives of the City of London Air Quality Strategy 2015 – 2020 and goes towards addressing air quality, which has been identified as a corporate risk.
19. Measures included in the LEN scheme support the Department of Community and Children's Services strategic aim of delivering value for money and outstanding services through the Barbican Estate's Service Based Review Programme. There is specifically the underutilisation of the Barbican car parks, in which any potential Electric Vehicle charging services would be based.

Implications

20. The key issues and risks associated with this proposal relate to:
 - Maintenance and management of the charging infrastructure
 - Ensuring electricity costs are reimbursed and covered by users
 - Power network within the estate has the capacity to cope with additional demand

- Reallocation of parking bays in a fair manner

21. Mitigation measures:

- All of the above issues will be monitored and reviewed as part of the pilot project.

Conclusion

22. This project is being fully funded by the LEN project and the BEO will report back to the BRC on the findings and results of the pilot. If for whatever reason a decision is made to remove the charging infrastructure and remove electric vehicle bays then all restoration costs will be similarly covered by the LEN project meaning there is no financial risk to the Barbican Estate.

Appendices

23. Please refer to the attached appendix documents:

- Appendix 1 - EV charging infrastructure shortlisting matrix
- Appendix 2 - Proposed terms of reference for EV charging point project

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ⁱ <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>