



LONDON FIRE BRIGADE

NOTE – this report contains a confidential Appendix.

Report title

Electric Vehicle Charge Points

Report to

London Fire Commissioner

Date

25 April 2018

Report by

Assistant Director, Technical and Commercial

Report number

LFC-0011

Summary

Electric Vehicle Charge Points (EVCPs) were installed at 78 of the London Fire Commissioner's (LFC) premises in 2015. Since the introduction of 57 electric range extended and Plug in Hybrid Electric Vehicles into the LFC fleet, the demand for EVCPs across the estate has increased considerably. A tender for further installation works and management of new and existing EVCPs was conducted using an existing local authority framework agreement. Two suppliers submitted compliant tenders, and it is proposed that the contract is awarded to the bidder who offered the most economically advantageous tender outlined in the Confidential Appendix 2.

Recommendation

The contract for the supply and installation of Electric Vehicle Charge Points along with maintenance, repair services and on-going network and back office management services is awarded for 5 years to the preferred bidder for the sum as set out in the Confidential Appendix 2.

Background

1. In 2015, Government grant funding of £790k was secured to install EVCPs on Brigade premises, with points installed at 78 sites. This includes 9 fire station forecourts where the points are accessible to the public.
2. In 2016 as part of the replacement cycle of fleet cars, all fleet cars were replaced with 57 electric range extended or Plug in Hybrid Electric Vehicles. Following the introduction of these vehicles, the usage of the existing EVCPs increased significantly from 28 sites used in 2015/16, to all but one site being used at least once for charging in 2016/17. The majority (78 per cent) of the charging activity in kWh's is from LFC electric fleet cars. The number of plug in vehicles on the lease car scheme has also increased (now 14) since the introduction of CO₂ emission limits for vehicles on car schemes as outlined in PN770. With the car schemes emission limits currently undergoing consultation between management and staff side to reduce the CO₂ limit and introduce requirements around other air quality emissions (NO_x and PM), and additionally the consideration of a provided car scheme for officers, it is expected the number of plug in cars used for business purposes will increase further.

3. The draft London Environment Strategy (LES) sets out actions for the Greater London Authority (GLA) Group to deliver. These include ' Using the GLA Group estate to support the delivery of infrastructure to facilitate charging and refuelling of electric and hydrogen vehicles, for example at fire station forecourt parking'. The strategy also set out targets to reduce fleet emissions including 'all cars in GLA Group support fleets being zero emission capable by 2025'. In order to achieve this a continued programme of installing charging infrastructure across the estate is necessary. This report does not included proposals to increase infrastructure on the forecourt as discussed in paragraphs 6-7.
4. The Budget Update report in January 2017 (FEP 2685) noted the creation of a new £421k earmarked Chargepoints Reserve to fund a further 44 EVCPs at the remaining stations without an EVCP (except for Heathrow, Southall and North Kensington) and to add additional points where possible to sites such as the head quarters carpark. The latter would provide increased capacity at sites of high demand and provide further future proofing as demand increased. The reserve budget included funding for installation of EVCPs through the tranche 2 works and services (via this contract), works at PFI stations (via the PFI contract) and associated costs including Planning applications, asbestos surveys (via the existing asbestos contract), change of lease license fees and project staff time. The contract value identified in the Confidential Appendix 2 relates only to the sum required for the tranche 2 works via this contract proposed for award, it does not include the other costs associated with the delivery of all tranche 2 EVCPs.
5. This was based on an initial high level review that identified 44 EVCPs. Subsequent more detailed reviews have taken into account site usage data and likely future demand as noted in paragraphs 2 and 3, leading to some changes to the proposed sites. One appliance stations sites considered for an additional EVCP have been removed. Additional points will be considered at campout stations following discussions with Central Operations Department and sites with insufficient capacity in tranche 1 will be surveyed again as capacity may have improved due to energy efficiency works that have been undertaken. There is also the possibility that some sites will fail capacity requirements in the tranche 2 surveys. Options to address the provision of an EVCP at all stations and to increase the provision at busy locations within the budget reserved will be considered on a case-by-case basis. As a result the contract value identified in this report is based on the 37 EVCPs proposed for installation (Appendix 1), whereby the final number of installations may be less.
6. Anecdotal feedback received from drivers on the low emission fleet cars is generally of a positive driving experience, with the most common issue raised being the lack of EVCPs across the LFC estate, and on occasion that all EVCPs at a site are fully occupied. The later is more commonly raised as an issue for the publicly accessible points. Harold Hill is the only publicly accessible point that is predominantly used by fleet cars for charging, the remainder are used primarily by the public, with some fleet use. Demand for LFB business use is expected to increase as noted in paragraph 2. The busiest public sites are Hornsey and East Ham fires stations as shown below and compared to the consumption for Sawyer St, which is the busiest site for fleet cars.

| 2017/18 | Public use kWh | Total kWh |
|-------------------|-----------------------|------------------|
| Hornsey FS | 5,090 | 5,913 |
| Sawyer St carpark | NA | 5,402 |
| East Ham FS | 3,405 | 3,512 |
| Average site | NA | 564 |

7. Should a public EVCP be identified as problematic for fleet car access, it can be removed from the public register at the discretion of the LFC. TfL have also established a framework to install publicly accessible rapid EVCP at no capital cost and using electrical supply from the street that may resolve potential availability issues at these sites. This will be the subject of a future report to the Commissioner's Board.
8. It is difficult to clarify with actual data if lack of availability for LFB use of publicly accessible EVCPs is problematic or not at present, although this could become an issue if demand by fleet users and car scheme users increased. At Hornsey during 2017/18 there were a number of instances of public users leaving vehicles parked for an excessive period of time (8-12 hours), and 44 separate instances where both points at the station were occupied by public users for an hour or more, and up to 8 hours, providing no access for LFB business use. In order to ensure maximum availability of EVCPs for fleet cars, all new installations planned for tranche 2 will be at the rear of site and not publicly accessible.
9. Government grant funding available for workplace EVCPs now operates as a voucher scheme with significantly reduced levels of funding. The voucher contribution is limited to £300 per point, with a maximum claim of £6000. As the vouchers have a limited life, they will be applied for following site survey. They are subject to Government funding available at the time of application. The preferred bidder is an authorised installer as required for applications to the voucher scheme.
10. Of the initial 44 proposed tranche 2 EVCPs, seven are planned for installation at Privately Financed Initiative (PFI) stations, with the remaining 2 PFI stations having had an EVCP installed during the site build as a condition of Planning consent. All works at these sites are required to be undertaken via the PFI Contractor, this does not include maintenance and back office services for the PFI EVCPs, which will be included in this new contract. The value of works is expected to fall below the new delegated authority limit, and will be addressed via the PFI contract variation process in place.

Procurement process

11. The tranche 2 installations would form a significant order increase over the initial 2014 contract order, representing a material change of greater than 10 per cent, necessitating a new tendering procedure. A new tender was issued under the Eastern Shires Purchasing Organisation (ESPO) Vehicle Charging Infrastructure framework agreement for the supply and installation of EVCPs at proposed LFC properties (Appendix 1) within Greater London along with maintenance, repair services and ongoing network and back office management services for the for the contract period. Each EVCP is to be a dual point installed at the rear of site. All existing points, including public points will continue to operate as usual, with maintenance and management of existing and new points falling under this new contract.
12. Tender responses were received from two suppliers, Chargemaster and BMM Ltd and evaluated in accordance with the published quality and cost criteria as set out in Table 1. The evaluation results of the bids submitted are detailed in the Confidential Appendix 2 .

13. Table 1: Evaluation Criteria and Weightings

| Criteria | Sub criteria | Section Weighting |
|---------------|---|-------------------|
| Price (50%) | Sample Installation costs - Surbiton Fire Station | 12.50% |
| | Survey cost per site | 7.50% |
| | Purchase cost of Wall mounted goods | 12.50% |
| | Purchase cost of post mounted goods (including crash barrier) | 7.50% |
| | Transaction fee per charge | 2.50% |
| | Call out charges | 2.50% |
| | Deduction per Service Level Failure | 5% |
| Quality (50%) | Solution meets specification requirements | Pass/fail |
| | Quality of Sample Survey | 10% |
| | Service Management | 10% |
| | Implementation and exit arrangements | 10% |
| | Installation Approach | 10% |
| | Sustainability requirements | 10% |

14. The price evaluation considered not only the fixed cost elements of purchase of the EVCP, but also site survey costs, transaction charges and call out charges. Surbiton Fire station was used for the sample survey and tenderers were required to attend the site to produce a quote and to document the proposed approach to installing a dual charge point at the rear of site in their tender response.
15. Surbiton itself lacked sufficient electrical capacity to install an EVCP without site electrical upgrade. Although any electrical upgrade works would fall outside of the scope of this contract, bidders were still able to complete the survey and provide survey documentation on the basis of installation of an EVCP with upgraded site electrics. The potential to upgrade sites will be considered on a site by site basis through the period of works.
16. It should be noted that the price associated with the survey, and which forms the basis of the contract value provided in the Confidential Appendix 2, are indicative only as the cost for installation will vary for each site due to:
- a. the location of the EVC and the length and ease of cabling required;
 - b. the extent of civil engineering works where any freestanding posts are required;
 - c. variation in the type of hardware proposed, due to site electrical capacity.
17. A pass/fail quality criteria was set to ensure the solution offered met the mandatory requirements set out in the specification including the quality standards of the goods set out in the ESPO framework, the provision of Pay As You Go (PAYG) facilities and user access. Scored quality criteria covered the following and were considered to be of equal importance:

- a. Quality of sample survey: the qualifications of the works team, approach to addressing site constraints, goods to be installed, and standard of survey report;
- b. Service management: how the bidder would meet the service level agreement, defects reporting, product warranty, training to support users, data access, and revenue collection and management;
- c. Implementation and exit arrangements: details of goods, covering safety, robustness, open protocol compliance, display information, timescales for surveys and delivery of goods, end of life proposals including a switchable network guarantee;
- d. Installation approach: implementation plans reflecting site prioritisation, electrical balancing, and health and safety approach; and
- e. Sustainability requirements: initiatives to reduce their environmental and social impact through manufacture, works and service management.

Pay as you go

18. Charging fees for PAYG users (public or private vehicles of staff) will continue to be of £1.50 per hour VAT inclusive as set by the LFC, including the transaction fee per vehicle per charge as set by the preferred bidder in their tender submission. The fees set by LFC are reviewed periodically by the contract manager to ensure they remain appropriate to cover costs. The per hour fee structure set due to historic regulatory requirements does not represent a fair and consistent charging mechanism to private users, whereby some LFC sites provide a faster charge than others due to site electrical capacity. It is now possible to base a charge on per kWh consumed. This could be changed now, however it would be preferable to review the potential to provide a rate that incentivises staff to take up low emission vehicles, without resulting in EVCP blocking for fleet cars. A proposals to review the fee set by LFC will therefore be the subject of a future report to the Commissioner's Board.

Finance comments

19. [REDACTED]

[REDACTED]

Workforce comments

21. There are no direct implications associated with this report requiring consultation, however staff at stations proposed for an EVCP have been consulted on the possible location of an EVCP at their station, to ensure local considerations are taken into account. Representative bodies have not been consulted.

Legal comments

22. The statutory basis for the actions proposed in this report are provided by the Fire and Rescue Services Act 2004 (the Act), Section 12 (1), under which the Authority is empowered to provide

the services of any person employed by it or any equipment maintained by it to any person for any purpose that appears to the authority to be appropriate. Section 5A of the Act further empowers the Commissioner to "do .. anything it considers appropriate for the purposes of the carrying-out of any of its functions... for purposes incidental to its functional purposes...[or] for purposes indirectly incidental to its functional purposes through any number of removes...". Section 18A makes provision for the Commissioner to charge for the service proposed in the report, however, any charge made must not exceed the Commissioner's cost of providing the service, when "taking one financial year with another". However, the Commissioner may exercise its Section 5A powers in regard to the service proposed for a commercial purpose, but if it does so this this will need to be done through a company or cooperative or provident society (Section 5B).

23. The provision of the EVCs in the way proposed involves the Commissioner reselling electricity purchased from a licenced supplier. Section 44 of the Electricity Act 1989 was amended to provide that the maximum resale price will not apply where the electricity is resold "from a charge point for use by an electric motor vehicle", thus enabling the Commissioner to resell this electricity at a commercial rate if it so wishes.
24. The tendering exercise to procure equipment or services to supply, install, maintain and manage such EVCs has been carried out in accordance with the public procurement regulations.

Sustainability implications

25. Further installation of EVCPs will: encourage staff to take up lower emission vehicles (an action of the LFC's Sustainable Development Strategy FEP 2580); support plans to introduce further emission limits on car schemes (an action of the Corporate Travel Plan 2013-18); support the LFC's targets on carbon emissions, by increasing the ability of the existing fleet of low emission cars to spend proportionally more time driving in electric mode; increase the resilience of the existing car fleet; and support the target in the draft LES to provide a car support fleet that is zero emission capable by 2025.
26. Figures to identify the change in carbon emissions following the introduction of low emission fleet cars will be published with the Sustainable Development Annual Report for 2017/18. A reduction is expected, with the average litres of fuel consumed per fleet car since the replacement of the diesel Astra's with BMW i3's reducing by some 90% and the average vehicle filling up the petrol range extended tank 1.13 times in 12 months.

Equalities implications

27. There are no equalities implications.

List of Appendices to this report:

- a) Appendix 1: Tranche 2 Proposed sites
- b) Appendix 2: Bidder Commercial Information – OFFICIAL–SENSITIVE - COMMERCIAL

Consultation

| Name/role | Method consulted |
|---------------------------|---------------------------|
| Head of Executive Support | draft circulated by email |
| | |

Appendix 1: Tranche 2 Proposed sites

| Station | Priority | Additional Info | No EVCPs |
|---|----------|--|-----------|
| Sites to be installed via tranche 2 contract | | | |
| Fulham | 1 | Campout site, listed building | 1 |
| Stratford | 1 | Campout site - points installed in tranche 1 | 2 |
| Lee Green | 1 | Campout site, listed building | 1 |
| Woodside | 1 | Campout site, listed building | 1 |
| Acton | 1 | Campout site, listed building | 1 |
| Shoreditch | 1 | Campout site - points installed in tranche 1 | 1 |
| Hendon | 2 | Listed building | 1 |
| Brixton | 2 | Listed building | 1 |
| Deptford | 2 | Listed building | 1 |
| New Cross | 2 | Listed building | 1 |
| Plumpstead | 2 | Listed building | 1 |
| Tooting | 2 | Listed building | 1 |
| Ealing | 2 | Listed building | 1 |
| Eltham | 2 | Listed building | 1 |
| Euston | 2 | Listed building | 1 |
| Wembley | 2 | Listed building | 1 |
| West Hampstead | 2 | Listed building | 1 |
| Bromley | 2 | Listed building | 1 |
| Kensington | 2 | Listed building | 1 |
| Southall | 2 | | 1 |
| Surbiton | 2 | Listed building | 0 |
| Heathrow | 2 | Leased site | 1 |
| Sawyer St | 3 | Leased site, points installed in tranche 1 | 3 |
| Merton | 3 | Leased site, points installed in tranche 1 | 2 |
| Barking | 3 | points installed in tranche 1 | 1 |
| Bethnal Green | 3 | points installed in tranche 1 | 1 |
| Clapham | 3 | points installed in tranche 1 | 1 |
| Croydon | 3 | points installed in tranche 1 | 1 |
| Hammersmith | 3 | points installed in tranche 1 | 2 |
| Ruislip workshops | 3 | points installed in tranche 1 | 1 |
| Soho | 3 | Leased site, points installed in tranche 1 | 1 |
| Walthamstow | 3 | points installed in tranche 1 | 1 |
| Wimbledon | 3 | points installed in tranche 1 | 1 |
| Sites to be installed via PFI contract | | | |
| Dagenham | | PFI site | 1 |
| Dock head | | PFI site | 1 |
| Leytonstone | | PFI site | 1 |
| Mitcham | | PFI Site | 1 |
| Plaistow | | PFI Site | 1 |
| Purley | | PFI Site | 1 |
| Shadwell | | PFI Site | 1 |
| Total | | | 44 |

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