

Date: 21 September 2023

Item: Electric Vehicle Charging Hubs

This paper will be considered in public

1 Summary

- 1.1 The paper sets out Places for London's proposal to form a Joint Venture to design, build, fund, operate and maintain Electric Vehicle Charging Hubs (EVCH) and associated facilities on five initial sites on our estate.
- 1.2 A paper is included on the Part 2 agenda which contains supplementary information that is exempt from publication by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.
- 1.3 We have a significant appetite to expand our offering, so the joint venture will be formed with the intention that further properties from our portfolio could be added in the future.
- 1.4 The paper outlines how the EVCH Programme aligns with Mayoral and Transport for London (TfL) policy and provides further detail on how the joint venture delivery model has been selected in the context of existing examples and current market players.
- 1.5 The paper provides the overarching rationale for participation in this market, supported with financial analysis in the paper on Part 2 of the agenda.

2 Recommendation

- 2.1 **The Committee is asked to note the paper and the supplementary information on in the paper on Part 2 of the agenda.**

3 Mayoral and TfL Policy

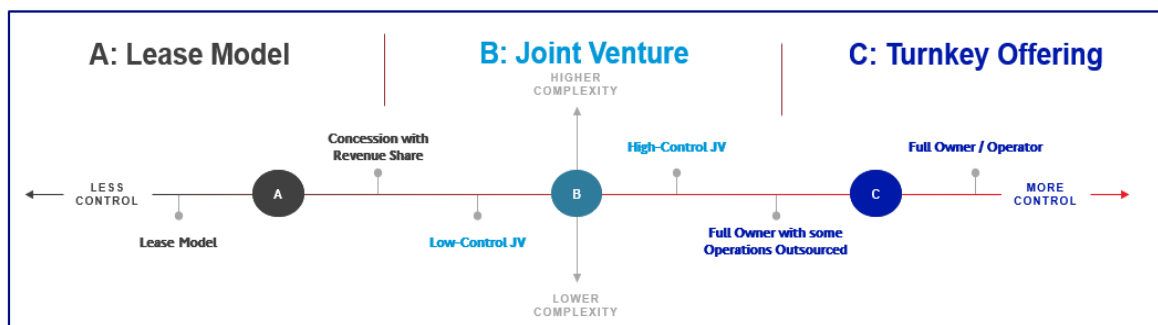
- 3.1 The Mayor's Transport Strategy (MTS) commits TfL to work with Government and stakeholders across London *"to ensure that sufficient and appropriate charging and refuelling infrastructure is put in place to support the transition to Ultra Low Emission Vehicles"*.
- 3.2 Since 2017, TfL has played an important role in Electric Vehicle (EV) infrastructure deployment in London with the delivery of the 'Go Ultra-Low City Scheme' and the 'Rapids Programme'.

- 3.3 TfL has also been responsible for defining overarching infrastructure delivery strategies for London, drafting the Mayoral EV Infrastructure Delivery Plan (EVIDP) in 2019 and the updated Mayoral EV Infrastructure Strategy (EVIS) in 2021. Both strategy papers identify high-speed charging as a priority for infrastructure provision in London, with a specific focus on a hub delivery model.
- 3.4 The latest delivery update to support the MTS, produced in June 2022, notes that zero emission capable (ZEC) cars, of which the majority are EVs, accounted for 28 per cent of all cars registered for the first time in 2022, up from 23 per cent in 2021. The proportion of ZEC cars on the road continues to rise each year (from 3.0 per cent in 2021 to 4.2 per cent in 2022) as does the take-up of electric vans, which is essential for the hubs' fleet utilisation. Alongside electric taxis and private hire vehicles, electric commercial vehicles are expected to be a majority of the customer share across the EVCH portfolio.
- 3.5 To support this growth, EVIS forecasts suggest that by 2030 London could require up to 4,000 rapid charge points. Of all the rapid charge points forecast to be needed by 2025, EVIS estimates that 20 to 30 per cent could be hosted, or delivered, by public bodies. The Mayor has committed to “*unlock GLA land*” for public charging infrastructure, with an initial focus on leveraging TfL landholdings.
- 3.6 The expectation of the number of hubs that will be needed varies – internal analysis has been conducted on a range from 85 to 350. Whatever the estimate, the current number of just 25 is far short of what is needed.
- 3.7 Two projects are on-going within TfL to facilitate EV charging deployment:
- (a) **EV Infrastructure Delivery (EVID)** – run by Investment Delivery Planning and funded by the Greater London Authority (GLA) to deploy single and double rapid charge points along the TfL Road Network; and
 - (b) **EV Charging Hubs (EVCH) Programme** – run and funded by Places for London to deploy ultra-rapid charging hubs on our estate, with a commercial focus.
- 3.8 TfL's City Planning, EVID and EVCH programme teams collaborate regularly to ensure complementary market approaches and deployment locations. Regular engagement is also scheduled with representatives from the GLA and local boroughs to ensure all levels of policy are considered and that there is an integrated, city-wide strategy for EV charging.

4 Delivery Methods

- 4.1 Places for London's land portfolio includes many sites which have interfaces with, or run alongside, transport nodes in London. These sites have been identified as attractive for EV charging and the growth of Places for London's business into a new market sector.
- 4.2 Investment in EV charging will support the primary objective to generate sustainable and growing income. It will also contribute to the principles of Places for London's Investment Strategy to enhance our existing estate and grow into new market sectors to diversify the investment and asset portfolio.

- 4.3 Places for London will focus on providing high-quality, high-speed accessible charging within hubs, in line with EVIDP recommendations. This delivery approach will generate growing revenues, whilst also providing social value to customers by addressing market underperformance associated with charging reliability, safety, accessibility and inclusivity. Hubs will also provide sustainability improvements and / or curated retail units.
- 4.4 Throughout 2022, with support from external consultants, Places for London undertook optioneering on the business model approach for market participation. This resulted in the identification of six possible approaches (see below), ranging in complexity and control, from a simple lease to a joint venture and turnkey offering.



- 4.5 To narrow down options, we undertook a capability assessment with personnel across the organisation to identify areas of, or gaps in, knowledge and experience. This highlighted the need for a partner to provide expertise in the delivery chain related to charge point installation, operation, maintenance and customer management.
- 4.6 In parallel, the high-level risk profiles and financial benefits of each option were assessed against Programme objectives. Outputs from analysis recommended that we proceed with a joint venture approach based on a 49 per cent: 51 per cent ownership structure, with Places for London owning and providing capital for the minority 49 per cent of the business.
- 4.7 The joint venture approach was selected as it was deemed to secure the highest risk-weighted return to the business, including:
- a higher quantum of income, with relatively small initial capital requirements and short payback periods (c. nine to ten years) in comparison to other sector areas in the business;
 - a long-term delivery strategy which ensures our influence and control in the current and future EV charging proposition whilst opening up opportunities for collaboration with Places for London's other joint ventures and strategic delivery partners;
 - a more flexible approach to allow the EV proposition to develop over time in line with our requirements, the EV charging market and technological developments;

- (d) an ability to play a dynamic, leading role in driving up standards of accessibility and inclusivity, customer experience and performance within the sector;
 - (e) a faster route for delivery of the pipeline, allowing Places for London to maximise its opportunity in a market estimated to be worth between £136m and £560m in annual revenues by 2030; and
 - (f) the option, subject to a full analysis of TfL's statutory powers, to bring third-party land into the joint venture to optimise public sector participation.
- 4.8 Whilst it is acknowledged that the risk profile and capital contribution in the joint venture is higher than its alternatives, such as a concession, it is important to stress that the flexibility and control Places for London will have over the EV charging proposition over the next 30 years will help limit risk exposure over time. It will also maximise the opportunities and innovation available to us in the market, facilitating quick scale up through our site pipeline to meet increasing market demands.
- 4.9 Places for London is also uniquely positioned to potentially mitigate some of the risk it would otherwise expect to adopt in a joint venture structure. For example, we may be able to supply the joint venture with electricity sourced through TfL's bulk supply contract as a means of reducing exposure to energy market volatility. In addition, we will ensure that the joint venture puts in place strict sub-contracts to reduce risk exposure relating to operations and maintenance. This should ensure each EVCH operates to a high standard, maximising the customer experience and revenue potential of each site.
- 4.10 To maximise the opportunity available, we will launch the joint venture procurement in autumn 2023, with contract award anticipated in autumn 2024.

5 Potential Partners and Places for London Alignment

- 5.1 The London market has nine current operators with active charge point offerings, and many more wishing to enter the market. Lack of land ownership and competing priorities with existing business areas (for example, fossil fuel retailing) are expected to restrict the number of players in the market and hinder development speed in the near and medium term.
- 5.2 Places for London will procure a joint venture partner to design, fund, build, operate and maintain EV charging infrastructure, and associated facilities, on our estate. In the procurement process, we will seek a partner that is skilled and experienced in the EV charging sector and with an excellent reputation for operating a reliable EV charge point network. Such a partner may be a single entity or a consortium of companies, for example, funders; Charge Point Operators (CPOs); Original Equipment Manufacturers; and Advisory Firms.
- 5.3 The evaluation team will place great importance on business model and organisational alignment with both TfL and Places for London's objectives.. Alongside the experience and capability outlined above, bidder submissions to the tender will also be evaluated on collaboration and partnerships with the public

sector, company Environmental, Social and Governance (ESG) and Net Zero ambitions, skills and apprenticeship schemes, and social value and community benefit. This aims to ensure that we secure a long-term strategic partner who can deliver significant social, as well as financial, value; and potentially work within our growing ecosystem of joint venture partners.

6 Benchmarking and Market Testing

6.1 In addition to business model analysis, a specialist consultancy supported Places for London in a benchmarking exercise. The table below outlines rapid and ultra-rapid charging hub schemes, on a national scale, which have involved a public entity either funding or providing land for EV infrastructure provision.

| | Be.EV network in Greater Manchester | Go Ultra Low Nottingham (D2N2 network) | Mid Devon | West of England Revive network | Oxford Super Charger |
|---|---|--|---|---|---|
| Type of charging infrastructure | Rapid | Rapid and fast charge points | Rapid chargers | Rapid and fast charge points | Ultra Rapid |
| CPO Owner | Iduna TTGM | BP Pulse BP | Instavolt Zouk Capital | GeniePoint Engie | Pivot Power EDF |
| Partners | Octopus Swarco 10 x LAs | 4 x LAs | ChargePoint | Yunex Traffic 5 x LAs | Oxford City Council Fastned Tesla |
| Type of contract | Concessions agreement | Concessions agreement | Supplier fully funded and owned installation | Own and operate model | Unknown |
| Contract length | Framework: 7+3+3 years | 5 + 5 years | 20-year lease agreement | 5 years | Unknown |
| Funding source | Government grant-funded | Government grant-funded. Supplier to provide any additional funds required and additional rapid charge points. | Private investment | Government grant-funded | Private investment |
| Responsibility for maintenance, repair and risk liabilities (for example, unexpected costs) | Determined on a case-by-case basis | ChargePoint supplier | ChargePoint supplier | LAs through maintenance contract with ChargePoint supplier Yunex Traffic. All risk and liabilities with the local authority | ChargePoint supplier |
| Revenue arrangements | All revenue will go to Transport for Greater Manchester for grant funded installations. Up to 20% revenue share for CPO owned installations | Unknown | Local authority receives small rental income as landowner | All revenue goes to the local authorities. Consortium of 7 partners to upgrade and replace the old West network borough. | Unknown |

6.2 New examples and business model approaches are arising regularly in the market. The West Midlands Combined Authority (WMCA) is currently the closest comparison to our proposed approach within the UK. WMCA is investigating the creation of a joint venture company with a private investor to acquire land and grid network reinforcements to support the deployment of ten ultra-rapid EV charging hubs. Sites and grid connection will then be provided to a CPO, who will work with an operating company to deploy and operate infrastructure. In return, the joint venture receives a regular rental and revenue share payments.

6.3 Whilst the joint venture approach is similar to our proposal, WMCA is having to take capital risk on the land, and hence is seeking to reduce risk and expenditure on the EV charging business itself. As we already hold the land, the business is in a privileged position to leverage annual site revenues to support investment and take a larger stake in the risk and reward of the sector.

6.4 Places for London has also tested the EV charging proposition extensively with the market via three engagement exercises in:

- (a) **April 2022** – A Market Sounding Questionnaire was issued to confirm market player capabilities, explore market appetite in working with us to deliver hubs, and obtain market opinions on contracting and financing models. Responses from the market were very positive, with 104

Expressions of Interest noted and 50 submissions received. This exercise confirmed a joint venture approach was the preferred route to market.

- (b) **December 2022** – An additional engagement exercise was run that tested our strategy for procuring a long-term joint venture partner. Responses from 22 market players and extensive interviews with six organisations confirmed the joint venture approach and provided insights into delivery, site development, design and branding, commercial and financial considerations and scale-up expectations.
- (c) **May 2023** – We released a Prior Information Notice to stress test the development of the joint venture proposal, target land typologies, mechanisms for land transfer and operational standards and the procurement process. Over 20 responses from across the market were received, and these provided further clarity on joint venture structure, expectations of the future pipeline, site design and typical service and performance levels.

6.5 We continue to monitor the market to ensure that notable trends and lessons learnt from previous or on-going deployment projects are considered. The joint venture approach is continuously assessed for practical application and key players are also kept up to date with progress via formal procurement channels.

7 Financial Implications

7.1 Places for London, with the support of external financial advisors, has developed a detailed model to enhance business model optioneering and site-specific analysis on charging demand, revenue and cost. The modelling approach is thorough, using clear principles to establish demand and resulting revenue at the hub sites.

7.2 Recently, the programme team has been working on refining model inputs for the joint venture, including testing commercial assumptions and business sensitivities. Outputs indicate that the joint venture continues to meet or exceed our corporate, strategic and investment metrics. Detailed analysis is included within Part 2 of this paper.

8 Counterfactuals and Liabilities

8.1 If we were not to proceed with the EVCH programme, it is expected that EVIS forecasts for charge point delivery are less likely to be met, especially given the lack of available and affordable land in London.

8.2 Failure to invest in the proposition would also remove a significant forecast income line.

List of appendices to this report:

Supplementary information on Part 2 of the agenda.

List of Background Papers:

Land and Property Committee paper, 1 June 2023, Electric Vehicle Charging Hubs

Contact Officer: Mark Farrow, Director of Strategy and Planning, Places for London Limited

Email: markfarrow@tfl.gov.uk