

Date: 28 June 2023

Item: Electric Vehicle Charging Hubs

This paper will be considered in public

1 Summary

- 1.1 The Electric Vehicle Charging Hubs (EVCH) programme is run by TTL Properties Limited (TTLP). This paper sets out the rationale for intervention in the Electric Vehicle (EV) charging market and TTLP's approach: namely, to launch a tender to procure a joint venture partner and participate as a minority shareholder in the resulting joint venture company.
- 1.2 The joint venture will be formed with the objective of designing, building, operating and maintaining EVCH and key associated facilities on an initial five properties. The purpose of the joint venture is to generate new and long-term income for TTLP, while contributing to commitments within the Mayor's Transport Strategy (MTS) to provide sufficient and accessible charging infrastructure.
- 1.3 The joint venture will be formed with the intention that further properties – from TTLP, Transport for London (TfL) and third parties – will be able to be added to allow the joint venture company to scale up and further diversify TTLP's investment and asset portfolio. This will have the benefit of diversifying TTLP's asset portfolio and risk exposure; and will actively contribute to the business's Environmental, Social, and Governance (ESG) Strategy.
- 1.4 The high-level objectives, structure and commercial principles that the joint venture proposition is expected to take are outlined below.

2 Recommendation

- 2.1 **The Committee is asked to note the paper.**

3 Status of the EV Charging Market

- 3.1 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 three per cent in 2021 to 4.2 per cent in 2022); as does the take-up of EV vans, which is essential for the hubs' fleet utilisation. Alongside EV taxis and private hire vehicles, EV commercial vehicles are expected to be a majority of the customer share across the EVCH portfolio.
- 3.2 Forecasts published by TfL in 'London's 2030 Electric Vehicle Infrastructure Strategy' suggest that by 2025 London could host between 0.3 to 0.6 million EVs, equivalent to between 9 to 21 per cent of the car and van share.

- 3.3 The MTS update also references the key commitment to unlock Greater London Authority (GLA) land for EV charging, both through the approach outlined here and by the Electric Vehicle Infrastructure Delivery (EVID) programme (described further in paragraph 4.3 (c))XX). To date, there remains a significant shortage of rapid charging across the capital.
- 3.4 To support the transition, significant investment into public charging infrastructure will be required to ensure that there are sufficient numbers, distribution and specification of charge points to cater to all vehicle use cases – both private and commercial – at home, at destination and en-route.
- 3.5 The Mayor’s EV Infrastructure Taskforce identified rapid, high-speed charging as a priority for infrastructure provision in London. This is driven by the lack of private, off-street parking for over two thirds of London’s residents, and the sheer volume of high mileage services that the city requires to function, including taxis, private hire and logistics fleets. These requirements demand a quick and convenient charging service that is capable of servicing multiple vehicles in a day.
- 3.6 An EV charging market is already established in London. As of April 2023, over 12,500 slow-to-fast charge points have been installed, as well as 916 rapid charge points. By 2030, it is estimated by the GLA that up to 60,000 slow-to-fast charge points and nearly 4,000 rapids will be required. The market is not scaling at sufficient speed to meet this demand, and work by TfL has noted a lack of access to suitable land as the most significant barrier to development.
- 3.7 Recommendations within the ‘EV Delivery Plan’, produced by the Mayor’s EV Infrastructure Taskforce, noted a focus on the delivery of rapid charging ‘hubs’. Hubs are defined as a facility that hosts at least six charge points and allows the simultaneous charging of six vehicles at high speeds: direct current 50+ kW or alternating current 43kW.
- 3.8 This proposition is beneficial as it facilitates:
- (a) the fast charging of vehicles (currently within 20 to 30 minutes, but this time is likely to fall);
 - (b) increased customer confidence in infrastructure as access to a charge point can be effectively assured;
 - (c) an improved customer experience as wait times are minimised; and
 - (d) higher income and also ‘revenue stacking’ as on-site retail opportunities can be offered.
- 3.9 The conclusions within the EV Delivery Plan have been supported by recent market trends with significant commitments made by current market players to expand their hub offerings and private equity investment consistently increasing.

- 3.10 A compelling business case can be made for TTLP to invest in the EV charging market, leveraging its strategic advantages:
- (a) as a major landowner in London with an unrivalled portfolio of attractive properties located along major transport links, or at interfaces with key transport nodes;
 - (b) as a long-term investor in London, experienced and specialised in partnering with the private sector to generate sustainable, growing and diversified revenues streams; and
 - (c) as a subsidiary of TfL, an overarching transport authority and trusted brand, to provide a high quality, sustainable, inclusive, and consistent solution for high-speed charging technology across boroughs.
- 3.11 Speed of deployment is critical to TTLP's success in the EV charging market. It is therefore vital that the joint venture scales quickly to utilise its attractive land and secure a position as a prominent player in the London EV charging market.

4 Alignment with TfL

- 4.1 Proposal 34 within the 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".
- 4.2 Work began with the creation of the 'EV Delivery Plan' in 2019 and, more recently, TfL's 'EV Infrastructure Strategy' in 2021 set commitments to help the sector overcome market barriers. A keystone commitment in the EV Infrastructure Strategy is to unlock GLA Group land and repurpose it for EV charging.
- 4.3 Three key programmes have been delivered, or are under development, by TfL that have markedly improved infrastructure provision across the capital:
- (a) TfL's Rapid Charging Programme (Complete) – delivered over 300 rapid charge points (50kW) across London to provide a foundation of EV charging infrastructure for early EV adopters, such as taxi and private hire drivers;
 - (b) Go-Ultra Low City Scheme (GULCS) – joint TfL, GLA and borough project that has installed more than 4,000 on-street electric charge points for London's residents; and
 - (c) EVID – GLA-funded workstream; run by TfL, focused on releasing GLA Group sites to the market to deploy non-hub high-speed charge points – a rolling programme of tendering began in November 2022, with the aim to deliver at least 100 charging bays.
- 4.4 As well as focusing on off-street hubs that can cater to a large customer base, the EVCH programme will, where possible, seek to support place-making with retail and welfare facilities. It will deliver a commercially focused strategy, investing in the design, build, operation, and maintenance of EVCHs to benefit from long-term operational revenues. It will also offer a robust and long-term solution for public charging infrastructure deployment where TTLP can control the design of the hub,

the customer experience, and the operational performance to ensure that the charging service provided is sustainable, accessible, and socially inclusive for all Londoners.

- 4.5 There is significant collaboration between the City Planning, EVID and the EVCH programme teams 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 there is an integrated strategy for EV charging across London.

5 Objectives

5.1 The EVCH programme has five key objectives:

- (a) deploy EVCHs on TfL's estate to improve the use of existing land assets with limited alternative use;
- (b) generate long-term revenues from EVCHs for TTLP to reinvest in the transport system;
- (c) investigate third party land – most notably that controlled by London boroughs and other major landowners – to secure a longer-term pipeline;
- (d) deliver material improvements in the number and distribution of charge points in London; and
- (e) establish exemplar standards for sustainability, inclusivity, and accessibility of charging infrastructure.

5.2 These objectives support and align with TfL's values and overall purpose. In addition, they complement and enhance TTLP's wider focus on generating sustainable and growing net income; delivering new homes and net zero neighbourhoods and communities; and future-proofing the portfolio to deliver net zero carbon.

6 Intervention Approach

6.1 In 2022, TTLP, supported by external subject matter experts, undertook a full review of business models used in the EV charging market. This identified six delivery methods, ranging from a simple lease to a concession approach, contractual partnership, joint venture and a full own-and-operate model, with either internally or externally sourced operations.

6.2 An assessment of TTLP's capabilities, the risk profile for each approach, detailed financial modelling and an objectives review concluded that a joint venture approach would be the most suitable intervention for TTLP. This was due to the size of the pipeline envisaged for EVCHs and the greater financial returns that were forecast from taking a large stake in the operational risks and benefits of EV charging.

6.3 By establishing a joint venture partnership, TTLP will benefit from: extensive operational expertise to ensure a high-quality service is provided to customers; a

greater ability to scale as investment and resource is shared between parties; and a long-term, higher-certainty approach that can accelerate delivery.

- 6.4 TTLP intends to procure a joint venture partner to design, build, operate and maintain industry-leading EV charging infrastructure, and key associated retail and welfare facilities, on an initial five properties owned by the TfL Group.
- 6.5 TTLP has tested the business model approach extensively via three separate early market engagement exercises. This outreach has confirmed strong market appetite to work with TTLP, stress-tested assumptions on the properties and commercial proposition, and refined outline heads of terms for the joint venture structure and business operations.
- 6.6 The participants in the joint venture company will be TTLP and the selected joint venture partner (which may be a single company or a consortium, represented by one lead partner). In the procurement process, TTLP seeks a skilled and experienced partner in the EV charging sector, with an excellent reputation for operating a reliable EV charge point network.
- 6.7 The parties' interest in the joint venture will be 49 per cent owned by the TTLP partner, and the remaining majority interest 51 per cent owned by the joint venture partner. This makes the proposition more attractive for private sector investment, reduces TfL's statutory constraints and governance processes on the business, and means any debt would not be represented on TfL's balance sheet.
- 6.8 TTLP will be responsible for securing land for charging hub development, transferring it to the joint venture and ensuring that there is a clear pipeline of properties to facilitate a sustainable scaling up of the joint venture company's operations. TTLP will also take responsibility for most of the initial viability work and developing sites to a stage at which the majority of preconditions for leasing the property to the joint venture company (including feasibility assessments, planning, vacant possession) are discharged.
- 6.9 Once the joint venture parties have agreed that a property should be sublet to the joint venture company, all responsibility for development and operation will pass to the joint venture company. The joint venture partner will be expected to have the capability to undertake much of this work directly but provisions within the contracts will allow goods and services to be delivered by the joint venture partner's existing subcontractors. Where needed, the joint venture company will appoint additional consultants and contractors to design, build, operate or maintain the charging hub facilities.
- 6.10 Future sites will be sourced from a large pipeline of roadside properties and station car parks within TfL's estate. There are potentially tens of sites that could be made available and developed by the joint venture.
- 6.11 Subject to a full analysis of TfL's statutory powers, third-party land may be acquired and introduced in the future as appetite has been noted across the public sector (including boroughs) for TfL to take a leading role in the development of EV charging hubs.

7 Delivery Pipeline

- 7.1 Five seed properties will be tendered as part of the joint venture partner procurement. Properties are being chosen to provide a representative sample of TTLP's pipeline, providing a variety of locations and land typologies, including: sites on major road corridors; on land adjacent to, or under, transport infrastructure; and within high-usage car parks.
- 7.2 In order to be introduced into the joint venture, the seed properties will have passed through detailed technical due diligence, received pre-planning advice (where applicable), and have non-contestable power works and costs completed. TTLP is taking a proactive approach to due diligence for the seed properties to provide the bidders with confidence that the sites are viable for deployment.
- 7.3 Once the joint venture is operational, TTLP's role in site development will change, with more activities being transferred across to the joint venture company. Primary responsibility for identifying and verifying properties will always remain with TTLP.
- 7.4 The full pipeline is in three stages: beyond the seed properties, the bidder will be presented with a list of sites, all of which will be presented with sufficient due diligence information to be properly assessed by a potential investor. The team will also present a longer-term vision, noting potential TfL sites that require additional investigation/internal clearance; plus external sites, such as those owned by third parties (primarily expected to be London boroughs) and some which interact with other infrastructure (such as bus garages, mobility hubs and GLA Group services).

8 Financial Implications

- 8.1 Initially, TTLP's investment in the joint venture company will be funded entirely by equity. However, flexibility will be retained in the joint venture corporate structure and contractual documents to introduce debt in the future, if agreeable to both parties in the joint venture.
- 8.2 High level financials have been considered. In 2021, TTLP commissioned external consultants Ove Arup & Partners Limited to develop a detailed financial model to support business model optioneering. Initially, the model considered all business model options, from a simple lease to a concession approach, a joint venture and a TTLP owned and operated solution. TTLP explored the outputs of this analysis and concluded that, in addition to other non-financial benefits, the Joint Venture approach provided the greatest risk-weighted return to TTLP.
- 8.3 Recently, the Programme team has been working on refining the model inputs for the joint venture, including testing commercial assumptions. Initial output indicates that the joint venture continues to meet all TTLP's investment criteria including a positive Net Present Value and an ungeared Internal Rate of Return in excess of the seven per cent hurdle previously set out in TTLP's Investment Strategy and endorsed by the Committee.

8.4 This work is continuing to be developed and will be shared with the Committee when it is concluded.

9 Timescales

9.1 TfL Legal and External lawyers are working with the team in respect of procurement, JV legal structuring and commercial terms and development of contractual documentation. TTLP and TfL Legal will work with external lawyers to reach tender launch, and ultimately JV partner appointment.

9.2 TTLP aims to launch the joint venture procurement on the market in summer 2023. Current estimates indicate that a contract could be awarded by July 2024, although opportunities are being explored to accelerate this timescale

9.3 Extensive market engagement has been used to gauge market interest in the proposal and to inform the procurement process. The team continues to monitor the market and there remains a high level of interest from potential partners and customers.

List of appendices to this report:

None

List of Background Papers:

None

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