Appendix 1: Electric Vehicle Action Plan for the City of London - DRAFT

The table below sets out the recommendations from the Energy Saving Trust's Electric Vehicle Infrastructure Forecasts 2025 report to. The actions under each recommendation set out what the City of London Corporation anticipates is necessary to deliver each of the recommendations, with target dates for the actions. Some actions are already completed or in progress and are included here.

Recommendation	Action and tasks		Target date
1. Develop a monitoring and evaluation framework. Observe and chart actual PiV uptake within CoL traffic flows and utilisation of existing charging infrastructure.			
	Data collection in future will enable us to accurately record age and engine type (through use of ANPR cameras). We anticipate having this active by the end of 2020. This can be compared to the scenario requirements set out in the EST report (high, medium, low) and allow us to review recommendations. ACTION: establish data collection across network of camera points.		October 2020
	The Transport Strategy committed to achieving a reduction in combustion engine vehicles, a key performance indicator for the proportion of the vehicles driving in the city to be zero emission has been set at 90% by 2030. Baseline data will be captured in 2020. ACTION: collate and report on vehicle profile		April 2021
2. A) Prepare immediate plans for phased installation of 26 **rapid (50kW) chargers** meeting the forecasts under the low scenario.			

	Installation at Noble St Taxi rest bay – COMPLETE	Taxi	May 2019
	ACTION: Complete installation of Baynard House site • 6 charge points live • site enabled for additional 4 charge points.	Taxi/ Freight	August 2020
	ACTION: Complete installation at Walbrook Wharf for refuse collection contractor • 1 charge point	Own fleet contractor	Mid 2020
	Taxi and Freight - rapid charge points: Identify sites for further 14 rapid charge points, planned for and brought on stream by 2025. Feasibility of sites will be assessed including site practicalities, connection costs to UKPN, funding options (wholly commercial or subsidised). For taxi and freight use we will investigate the feasibility of further taxi rest bay sites: Noble Street (additional 1); Ropemaker Street; St Andrew Street; Angel Street; Mincing Lane; Appold Street; Smithfield area; Barbican (Moor Lane); Barbican Trade Estate (access off Beech Street) Sites will be considered for either taxi priority or mixed use to provide flexibility for users and to ensure sites are commercially attractive to concessionaire charge point providers.	Taxi / Freight	

	ACTION: investigate and report on site potential and practical feasibility of taxi priority sites; prioritise sites for implementation up to 2025.	Taxi / Freight	December 2020
	ACTION: prepare for tender and identify funding for enabling works for two taxi priority sites.	Taxi priority	December 2020
	ACTION: prioritise remaining feasible and deliverable taxi priority / and shared use freight sites and prepare for delivery commencing 2021/22. We will consider funding options so that where possible sites can be tendered on fully commercial basis, with provider meeting cost of all enabling works.	Taxi / freight	December 2020
	Freight: Rapid (50kW) charge point provision within City of London car parks, 7 points recommended for freight use. In developing Last Mile Logistics Hubs proposals, we are reviewing both the existing electrical capacity and what enabling works would be required to provide for charging infrastructure in car parks. Initially, this information will be used to help inform bid responses from freight operators for charging facilities to support their operations, most of which is anticipated to be standard (7kW). We will also use the assessment of network capacity and requirements to establish whether there are opportunities for new publicly available rapid (50kW) charging aimed at freight vehicles. This would be in a public area of the car park. Site assessments will be carried out approximately 12 months before anticipated readiness therefore this is a rolling programme commencing 2020 through to 2022. Anticipated operational dates: London Wall Car Park - December 2020; Barbican Trading Estate Access - July 2021;	Freight	2020-2022

	Middlesex Street Estate Car Park - October 2021; Minories Car Park - 2022.		
	ACTION: Identify and tender publicly accessible rapid (50kW) charge points within underground car parks, subject to site appraisal.	Freight	2020 - 2022
	ACTION: Identify shared freight/taxi sites following site appraisal (as noted above) and prepare for delivery 2021/22.	Freight/ Taxi	December 2020
2. B) Prepare immediate plans for phased installation of 65 x2 point access **standard (7kW) chargers**, meeting the forecasts under the low scenario.			
	Freight Standard (7kW) charge point provision within logistics centres and public car parks. In developing Last Mile Logistics Hubs proposals, we are reviewing both the existing electrical capacity and necessary enabling works to provide for charging infrastructure. Site assessments at all potential logistics hubs (as listed under 2a) will be carried out approximately 12 months before readiness therefore rolling programme commencing 2020 through to 2022. The forecasts for general freight are that most demand will be for rapid (50kW) chargepoints, however where provided within logistics centres for that operator's exclusive use these are likely to be standard chargers given the nature of the operations and the cost of providing rapid chargers. Further provision for freight is available with the charge points that are publicly accessible in Corporation public car parks, this will be shared use with private car, private hire as noted below.	Freight	

	ACTION: Identify capacity and potential for charge points for freight operators (exclusively) within logistics operations and develop with other enabling works to prepare for logistics centres.		2020 - 2022
	Private Car, Private Hire and Motorcycle - public access car parks. 50 standard chargers are required which will meet the requirements of private car users, including residents who use public car parks, freight and private hire. The majority of these will be provided in public car parks for shared use as at present. We will review the use of the current charge points to identify areas of higher or lower demand. It is proposed that the contract to provide standard charge points in public car parks is considered together with private residential car parks as that is likely to be more commercially viable and provide a better offer to all users. Although freight vehicles are less likely to use standard charge points, they are still available as shared use. Motorcycle requirements are for 15 standard charge points up to 2025. Sites will be recommended once the review of parking provision for motorcycles has been completed. This has been surveyed in 2019 along with opinions of users and this will form the basis of recommendations for future provision.	Private car/ motorcycle	
	ACTION: Review usage of current charge points.		May 2020
	ACTION: Assess power network capacity at all sites.		July 2020
	ACTION: Identify recommendations for motorcycle parking provision, following detailed motorcycle parking/user study.		July 2020

	ACTION: Tender for all public car park provision to include motorcycles and consider joint contract for private residential car parks.		December 2020
	Private Car and Motorcycle - Residential private car parks. There are a limited number of private residential car parks under the Department of Children and Community Services. Although car ownership is relatively low there is still some demand for electric cars and car clubs in the future. It is recommended that the invitation to tender will also include an electric vehicle car club and provision for residents' motorcycles. The option to combine these private car parks, with the Corporations public car parks within one contract for EV infrastructure will be considered as this is likely to be more commercially viable and offer a better service to residents.	Private car/ motorcycle	
	ACTION: Survey residents to identify demand for EV charging and car club.		May 2020
	ACTION: investigate potential funding options for enabling works to be met by provider to minimise cost to CoL/residents (for residential standard power some providers can also assess the network capacity, as part of the package of works).		May 2020
	ACTION: Assess power network capacity at all sites.		July 2020
	ACTION: Issue invitation to tender for private residential car parks December 2020.		December 2020

	Private car and Motorcycle - Barbican private residents car parks. 22 charge points in place since 2018 - exclusively for residents' use. The Barbican already has a number of charge points with 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 provide more charge points and whether subsidies might be available. It is intended that the Barbican will be included in an EV car club. We are also considering sites on Barbican land or adjacent to that offer public access and may therefore offer additional rapid charge points for residents as this can increase the commercial viability.	Private car/ motorcycle	
	ACTION: Assess additional sites adjacent to Barbican. Identify funding options if sites are publicly available, followed by recommendation to Barbican Residential Committee.		June 2020
	ACTION: Issue invitation to tender dependent on recommendation above.		December 2020
3. Dynamically evaluate the suitability of the low scenario against technological developments and infrastructure plans across Greater London.			
	Continue engagement with industry, neighbour boroughs and TfL to ensure recommendations and future provision is in line with technology as it develops, both the charge points and the batteries within vehicles. ACTION: Update report on changes in technology after 18 months.		June 2021

	Liaison with neighbour boroughs and TfL. Boroughs have submitted funding requests to TfL (October 2019), when the decision on what is feasible and will be funded through TfL has been made we can engage in more detail with neighbour authorities. ACTION: Map out 5 year plan for neighbour borough provision for rapid and standard charge points.		June 2020
	ACTION: Produce update report after 18 months - containing review of provision requirements contained in EST report based on: • Rate of uptake of EVs • Battery technology and range; • Charge point technology;		June 2021
4. Prepare contingency plans that will mitigate against the impacts of unmet demand equivalent to the high scenario, and alternative proposals for oversupplied sites.			
	Continue to identify further sites for high scenario, working with private sector and industry for EV supply equipment. Consider more flexible provision with private sector and ensure that network capacity issues are understood with UKPN engaged in the discussion. Smarter solutions will be explored, and funding opportunities sought directly through commercial providers. ACTION: Update on innovative and smarter solutions including provision at private sites.		June 2021

	A review of the forecast demand and maintaining an awareness of the market should prevent over provision in the next 5 years. Almost all planned sites will be within car parks therefore if usage is not high in any locations they will easily return to standard parking space. It is not intended to place a high proportion on-street. ACTION: update report on forecast demand		June 2021
	There are currently a mix of slow and standard charge points in CoL public car parks. The usage patterns and anticipated demand will be reviewed before re-tendering the contract to aim to provide where demand is highest.		July 2020
5. Work with neighbouring boroughs to identify collaborative opportunities for strategically placed, scalable and efficient infrastructure solutions on arterial routes.			
	Liaison with neighbour boroughs and TfL. In the most recent bidding round London Boroughs have submitted funding requests to TfL (October 2019), when the decision on which sites will be funded through TfL has been made we can engage in more detail with neighbour authorities. Consideration of further hub sites will be included. ACTION: Map out 5 year plan for neighbour borough provision for rapid and standard charge points.		June 2020
	Identify potential joint funding / subsidy solutions by joining with neighbour boroughs.		

	ACTION: agree to delegation to allow London Council's to act on behalf of and support London Local Authorities in their activity to provide EV charging infrastructure.		March 2020
6. Work with Electric Vehicle Supply Equipment (EVSE) industry and other stakeholders, to ensure that commercial opportunities for market led, or partnership solutions are well publicised and free from unnecessary development barriers.			
	City officers are engaged through the networks established through the Mayor's EV Infrastructure Task Force. This includes industry providers, all London boroughs, TfL and UK Power Networks. Further liaison and lobbying is organised through London Councils to provide a co-ordinated approach to provision, which the freight industry seeks. Work directly with freight operators is continuing through the established relationship the City has developed with Freight Trade Association and other industry networks. We will work with businesses to identify private sites that may be commercially viable and still meet the overall need. Innovative solutions where appropriate will be considered as both battery and charging technology develops.		
	ACTION: Update report after 18 months on innovative solutions and partnership opportunities.		June 2021

All site investigation and planned installation will be made in line with the policy for EV charging infrastructure adopted in October 2017 and set out below.

City of London adopted policy on locations for charge points.

The number and location of charge points will aim to meet the needs of vehicles accessing and serving the Square Mile without generating any additional vehicle trips. Charge points will only be installed in locations that have minimal impact on the public realm and do not add to street clutter or restrict pedestrian movement.

To meet the needs of the different vehicle types, the following locations will be acceptable for installing charge points:

Vehicle type	Charge type	Location
Taxi	Rapid /Fast	Off-street public car parks On-street by exception
Private Hire	Fast/Standard	Off-street public/private car parks
Private Car	Fast/Standard	Off-street public/private car parks
Freight and servicing	Rapid/Fast	Off-street public/private car parks Freight consolidation centres Private off-street loading areas

The installation of charge points will be supported by other measures to encourage the transition to ULEVs for taxis, freight and servicing vehicles. These could include ULEV only taxi rest bays and ranks and on-street loading bays.