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(Please note that "Information Only" reports do not require Integrated Impact Assessments, Legal or Finance Comments as no decision is being taken)

Title of meeting:	Traffic and Transportation Decision Meeting
Subject:	Update on rapid electric vehicle (EV) charging infrastructure for taxis and private hire vehicles (PHVs)
Date of meeting:	18 March 2022
Report by:	Tristan Samuels - Director of Regeneration
Report Author:	Hayley Chivers, interim Transport Planning Manager
Wards affected:	Charles Dickens, Cosham, Nelson, St. Jude

1. Requested by

- 1.1. Update requested by the Cabinet Member for Traffic and Transportation following the decision made by the Cabinet on 2 November 2021 approving the recommendation to install rapid chargepoints at four sites in the city.

2. Purpose

- 2.1. To provide an update on the proposal to install rapid electric vehicle (EV) charge points in various car parks and associated user tariffs for Stubbington Avenue car park.

3. Information Requested

- 3.1. There are three fast charging facilities available across Portsmouth in council owned car parks (Isambard Kingdom Brunel Multi-storey, Seafront Esplanade and Park and Ride) and, there will be almost 100 residential on-street charge points once Phase 2 of the On-Street Residential Chargepoint Scheme (ORCS) has been completed.
- 3.2. In March 2021 Portsmouth City Council were awarded £499,279 by the Joint Air Quality Unit (JAQU) for the installation of rapid chargers specifically for taxis and private hire vehicle use. This funding was awarded to enable the drivers of these vehicles to upgrade to electric vehicles as part of the Clean Air Zone scheme. Funding was granted following the successful amendment of taxi licencing policy to make all newly licenced vehicles from 1 January 2025 onwards 'zero emissions

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capable', and that a new restriction on the age that a vehicle can be licensed up to; in December 2020 this was set at eight years.

- 3.3. Following this, transport planning and energy team colleagues have been working with Joju Limited (Joju) through the existing Hampshire Framework to undertake feasibility studies on Portsmouth City Council owned car parks, following approval of the proposed sites at Cabinet in October 2021. These feasibility studies have been attained through the Distribution Network Operator (DNO) who is Southern and Scottish Energy (SSE), who have provided quotes for works necessary to upgrade these sites to include capacity necessary for 50kWh (minimum) rapid chargers.
- 3.4. Some sites have proven to be prohibitively expensive to install and it is preferable to install as many rapid chargers as the funding allows. The first viable site for the installation of a rapid charger has been identified as Stubbington Avenue car park (PO2 0HS) which was installed in February 2022.
- 3.5. After considering Member and taxi trade feedback alongside the technical and financial feasibility, and existing car park situations, the remaining rapid chargers are planned to be installed at the following locations:
 - a. 3 chargepoints at the park and ride (Park and Ride Portsmouth, Tipner Lane, Portsmouth PO2 8AN) - installation due in Spring 2022
 - b. 3 chargepoints at D-Day car park (D-Day Car Park, Southsea, PO5 3NT) - installation expected in Summer 2022
 - c. 1 chargepoint at London Road (London Road Car Park, 10 London Road, Cosham, Portsmouth PO6 3EL) - installation expected in Summer 2022
 - d. 1 chargepoint at Isambard Brunel Road (Isambard Brunel Surface Car Park, Alec Rose Lane, Portsmouth PO1 2BX) - installation expected in Summer 2022
- 3.6. An additional location at Isambard Brunel surface car park has been added following Cabinet approval to allow a wider spread of rapid chargers for the convenience of the taxi and private hire vehicles.
- 3.7. It has been ascertained that the council could manage its own metering and billing for the rapid chargers for taxi and private vehicles enabling increased control over the tariff rate and opportunity for revenue share to assist in covering future maintenance costs.
- 3.8. The back-office set up would be via Joju's back-office supplier MER.
- 3.9. The council will pay for the electricity supplied from the grid, whilst the MER back-office will be responsible for billing users and collecting the revenue from the chargers. The revenue then rebated to the council will cover electricity supply

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costs. The sum remaining will be revenue to the council to be set aside for future maintenance and other associated running costs. The council's transport team will be responsible for the funding arrangements and tariff setting with the energy services team assisting with administering the billing through their routine processes and energy management software Systems Link requiring no additional resource.

- 3.10. The council's electricity contract is 'Renewable Energy Guarantees of Origin (REGO) backed' meaning the electricity supply to the Rapid EV chargers will be from renewable sources and therefore 'Green'.
- 3.11. The electricity supply for each site is contracted prior to install on a site-by-site basis. It is important that the tariff rate set is higher than the electricity rate to accommodate other costs the council will incur and not have an overall loss and therefore the associated tariff rates will be set on a site-by-site basis and may differ across the city.
- 3.12. The electricity contracts are usually set for a year and will be reviewed in line with this. The transport team will review the electricity tariff with the energy services team upon supply contract renewal (usually on a yearly basis). The energy services team can provide what the new supply rate it, so that the transport team can make an informed decision on the rates being charged to Taxis/PHVs.
- 3.13. For comparison, the costs of charging at other rapid chargers in Portsmouth and the surrounding area are in Tables 1 and 2 and were understood to be correct at the time of writing this report.

Table 1 - Rapid EV charger tariffs within the city

Location	Supplier	Maximum Power	cost (PAYG) (£p/kWh)	Parking charge
Tesco Fratton Way	Pod Point	CHAdeMO (50kW) CCS (50kW)	28	Free parking for customers
Wightlink Gunwharf Terminal	bp pulse	CHAdeMO (50kW) CCS (50kW) Type 2 (43 kW)	40	£10/hour overstay fee after 90 minutes
Morrisons Portsmouth (Victory Retail Park)	GeniePoint	CHAdeMO (50kW) CCS (50kW)	42	Free parking for customers up to 90 mins,

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		Type 2 (43 kW)		£10 overstay fee for every subsequent 90 mins
Portsmouth International Port	InstaVolt	CHAdEMO (50kW) CCS (50kW)	50	

Table 2 - Surrounding area

Location	Supplier	Maximum Power	cost (PAYG) (£p/kWh)	Parking charge
KFC Larchwood Avenue, Havant	InstaVolt	CHAdEMO (50kW) CCS (50kW)	50	
Leigh Park Municipal Car Park	GeniePoint	CHAdEMO (50kW) CCS (50kW) Type 2 (43 kW)	42	Free parking for customers up to 90 mins £10 overstay fee for every subsequent 90 mins
Morrisons Gosport	GeniePoint	CHAdEMO (50kW) CCS (50kW) Type 2 (43 kW)	42	Free parking for customers up to 90 mins £10 overstay fee for every subsequent 90 mins
Tesco Fareham	Pod Point	CHAdEMO (50kW) CCS (50kW)	28	Free parking for customers
Morrisons Horndean	GeniePoint	CHAdEMO (50kW) CCS (50kW) Type 2 (43 kW)	42	Free parking for customers up to 90 mins £10 overstay fee for every subsequent 90 mins

3.14. As detailed in the tables, most tariffs are in the £40p/kWh range.

3.15. With a tariff rate set at £40p/kWh then a literal full charge of 50kWh will cost the driver £20 if it is assumed they have a 50kWh battery (average EV). In practice, no EV driver will end up arriving at a chargepoint with literally 0% charge in their battery and the charging rate of any charger unit slows considerably once a battery is 90% charged, so most users will probably receive a maximum of 90% charge in a session of one hour using a 50kW charger. It is likely that an hour's charging will cost the driver roughly £18.

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- 3.16. No operation and maintenance (O&M) costs are incurred for the first three years after installation. However, after these three years the council will be required to fund this. It is therefore recommended that any revenue made from this scheme should be held for three years in order to fund future O&M, additional revenue exceeding this amount would be ringfenced for transport projects. Any ad-hoc maintenance costs falling outside warranty such as damage by vehicle strike would be borne by PCC.
- 3.17. Each rapid charger installed usually requires the conversion of two standard parking spaces due to the need to include hatching to enable full charging accessibility around the vehicles, with different vehicles having charging ports positioned in different locations. There may be a loss in income from these removal of standard parking spaces.
- 3.18. The tariff for the first car park at Stubbington Avenue is set at a rate of £40p/kWh following a financial appraisal based on the agreed electricity rate. It is estimated that there will be a small net expenditure in the first year of the scheme offset by a net income the following years. Subsequent car parks tariff rates will be set aligned with this rate and their individual agreed electricity rates.
- 3.19. In order to incentivise taxi/PHV drivers to utilise the rapid chargers, it is proposed there will be no cost for parking when utilising the chargepoints. Charging a vehicle would be expected to be completed in 30 minutes and no more than 60 minutes. To encourage vehicles to move on and maintain accessibility of the chargepoints for other users there will be a £10 charge applied via the chargepoint billing system for vehicles which remain over 90 minutes.
- 3.20. The parking bay is designated for licensed taxis and private hire vehicles only. Penalty Charge Notices (PCNs) can be issued if a vehicle, other those aforementioned, is found parked in the bay. A Traffic Regulation Order is not required for this.
- 3.21. The MER back office allows for the creation of a free log in system through the MER connect app. To restrict the use to taxi and private hire vehicles, licensed drivers would need to register on the app in advance of their first use and Joju would verify their eligibility using a database of eligible licensed Portsmouth taxis and private hire vehicles provided by the council. If drivers did not have a smart device, it could be arranged to provide them with a RFID tag which would likely incur one-off cost of around £5. The council's officers will be required to periodically send updated lists of taxi/PHV plug in vehicle ownership to MER via Joju, who will ensure that only the vehicles listed will have access to the service.
- 3.22. If there is demand from taxis and private hire vehicles from outside of the city, it will need to be investigated as to how their eligibility can be confirmed.

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4. Next Steps

- 4.1. Officers will closely monitor the usage of the charger for a period of at least 16 weeks after the installation. Consideration will be given to open the chargers for usage other than taxis and private hire vehicles if demand from the trade is found to be very low.

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Signed by: Tristan Samuels, Director of Regeneration

Background list of documents: Section 100D of the Local Government Act 1972

The following documents disclose facts or matters, which have been relied upon to a material extent by the author in preparing this report:

Title of document	Location
Cabinet October 2021- Rapid Electric Vehicle Charging Infrastructure for Taxis and Private Hire Vehicles	https://democracy.portsmouth.gov.uk/documents/s34964/Rapid%20EV%20Charging.pdf