

**Title of meeting:** Traffic and Transportation Decision meeting

**Date of meeting:** 23 January 2020

**Subject:** Off-Street Electric Vehicle Chargepoint Trial: Progress report

**Report by:** Tristan Samuels - Director of Regeneration

**Wards affected:** Charles Dickens, St. Thomas and St. Jude Wards

**Key decision:** No

**Full Council decision:** No

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**1. Purpose of report**

- 1.1 The purpose of this report is to provide a progress review of the off-street electric vehicle chargepoint trial.

**2. Recommendations**

**It is recommended that the Cabinet Member for Traffic and Transportation approves:**

- 2.1 **Progress of the off-street electric chargepoint trial is noted;**
- 2.2 **The off-street electric chargepoint trial is extended for an additional year in its current form ending on 29 January 2021.**

**3. Background**

- 3.1 Portsmouth is subject to a Ministerial Directive to deliver a citywide Local Air Quality Plan to bring forward compliance for nitrogen dioxide emissions in the shortest possible timescales. A targeted feasibility study identified a combination of measures which would bring forward compliance, one of which was the rollout of electric vehicle charging points both on and off street to encourage Electric Vehicle (EV) ownership.
- 3.2 There has been an increase in the number of plug-in electric vehicles. There has been an increase in the number of plug-in electric vehicles (EVs), including cars, quadricycles and Light Goods Vehicles (LGVs), registered in Portsmouth since the commencement of this trial. At the end of 2017, there were 1,033 EVs registered in the city. The latest information from the Government website ([www.gov.uk](http://www.gov.uk)) shows that this has increased to 2,025 as at September 2019, representing a 96% increase. Further figures show the number of registered EVs in the city at the end

of 2018 represent a little over 1.35% of 'like for like' vehicles - an encouraging trend given the 0.86% share at the end of 2017.

- 3.3 The growth in EV vehicles registered locally follows the upward trend in electric vehicle ownership in England. The Department for Transport (DfT) and the Driver and Vehicle Licensing Agency (DVLA) figures (provided by the ONS) show that 98,648 new EVs were registered in the UK between Q4 2017 and Q3 2019 - an increase of 75%.
- 3.4 Whilst the increased uptake in ULEVs (Ultra Low Emission Vehicles) in Portsmouth is a positive step towards reaching the ambitions of the Government's Road to Zero strategy, the council acknowledges that without sufficient EV charging infrastructure in the city, further uptake of ULEVs is likely to be limited.
- 3.5 Providing infrastructure to enable the charging of electric vehicles for public use is an essential first step in encouraging the transition to electric vehicles. In December 2019, the council was awarded £229,860 for 75% of capital costs for phase 2 of the On-street Residential Chargepoint Scheme (ORCS). This scheme allows residents to charge their vehicles whilst at home. Following the announcement of this funding, the ORCS scheme will be developed further, and presented in a separate report to the Traffic and Transportation Cabinet meeting.
- 3.6 Prior to the implementation of this trial, Portsmouth City Council provided a publicly accessible dual chargepoint at the Portsmouth park and ride site. This chargepoint is stand alone and is not linked to the chargepoints within this trial.
- 3.7 On 17<sup>th</sup> July 2017, a detailed report was presented and approved by the Cabinet Member for Traffic and Transportation, which outlined the intentions of this scheme and considered the possible chargepoint locations.
- 3.8 The off-street EV chargepoint trial was designed to promote electric vehicles as a viable choice through providing necessary charging infrastructure for residents and visitors. This report will inform the strategy being developed for other Portsmouth City Council owned off street locations including upgrading the park and ride provision with consideration of other pay and display car parks, business parks and leisure sites.
- 3.9 As part of the Local Air Quality Plan, the Council are working with taxi trade representatives, to seek funding to install rapid charging units around the city in convenient locations to allow for the charging of taxis and private hire vehicles.
- 3.10 The company supplying the charging units, CityEV, are a Portsmouth based electric vehicle chargepoint supplier who, until commencement of the trial, had been focussing on the domestic and business market. CityEV approached the city council regarding testing their chargepoint product for public use through a trial. A contract was agreed with the commencement date of 30<sup>th</sup> January 2018 and subsequently, CityEV installed 3 points at the locations detailed in section 3.12.

- 3.11 The chosen chargepoint was a CityEV Cityline 100 unit that can be attached to either lamp columns or walls. This design provides more flexibility when considering chargepoint location(s). These charging units are approved for use by the Office for Low Emission Vehicles (OLEV).
- 3.12 The trial consists of one fast (7kW) chargepoint in a prominent position in each of the 3 locations with directional signposts and an identifiable parking bay;
- Seafront Esplanade Car Park, PO5 3AP
  - Isambard Brunel Multi-Storey Car Park, Alec Rose Lane, PO1 2BX
  - Clarence Pier Car Park PO5 3AP
- 3.13 These locations were chosen based on their usage, proximity to work/tourist destinations and the average dwell time of vehicles being sufficient to adequately charge plug-in vehicles.
- 3.14 The chargepoints at the Seafront Esplanade and Isambard Brunel Multi-Storey Car Parks were launched in March 2018. The Clarence Pier chargepoint was installed in December 2018.
- 3.15 For each of the three charge points installed for the trial, electricity is provided at no cost to the driver, however parking charges still apply.
- 3.16 CityEV provide the back office system for the charge points where Portsmouth City Council are able to log in and access charge point usage data. A number of issues have been experienced, which has led to lost and incomplete data sets and long resolution periods. CityEV have outlined that the back office system being used to record the chargepoint usage at the three council sites is only a test system and are working to address the issues highlighted to them.
- 3.17 Data on chargepoint usage shows that for the period March 2018 to the end of September 2019, a total of 965 charges took place. Whilst the council has been gathering data on usage at all sites, there is less data available for Clarence Pier Car Park as this was not installed until late September 2018. The back office system providing the usage data is a test environment and at present, usage data is only available up until the end of September 2019. Portsmouth City Council are working with CityEV to obtain the most recent data.
- 3.18 The following usage summary is for the period of March 2018 to the end of September 2019:

**Isambard Brunel Multi-Storey Car Park**

- On average, vehicles charge for 2-4 hours (which is in line with charging times expected from a 7kW fast charger, 3-5 hours for a full charge) with 41% of charging activity taking place between 8am and 12 noon.

- Although data shows some overnight usage, charger use begins to reduce after 5pm with 9% of charging activity taking place between 11pm and 8am.
- The data shows a routine pattern of charging behaviour indicating that there are repeat users of the chargepoint.
- Throughout the week, 86% of charges are initiated on weekdays, with 9% on Saturdays and 5% on Sundays.
- As 75% of charging takes place between 8am and 5pm, an assumption can be made that the repeat users are likely to be commuters or people that work within the locality.
- This charger has been used 431 times for a total duration of 1,227 hours 08 minutes consuming 5240kWh of power, costing £710.69.

### **Seafront Esplanade (Hovertravel) Car Park**

- On average vehicles charge for 2-3 hours with 36% of charging activity taking place between 8am and 12 noon.
- Usage then reduces but continues to be used throughout the evening with 29% of charges taking place between 10pm and 8am.
- Throughout the week, 73% of charges are initiated on weekdays, with 11% on Saturdays and 16% on Sundays.
- The average plug in time (length of time the space is occupied) extends beyond the charging period by up to 2 hours; this is to be expected as the Esplanade Car Park was partly chosen as users generally have a long dwell time.
- Overall, 23% of charges start in the morning between the hours of 9am and 11am indicating that the car park is attracting commuters and visitors perhaps using the Hovercraft.
- This charger has been used 495 times for a total duration of 1587 hours 16 minutes consuming 5720kWh of power, costing £775.79.

### **Clarence Pier Car Park**

- This car park's chargepoint has only been online since December 2018 and the usage figures, although encouraging, reflect this.
- On average vehicles charge for 1-2 hours with 50% of charging activity taking place between 12 noon and 4pm.

- Usage then reduces but continues through the evening with 26% of charges taking place between 4pm and 11pm. The charger is mostly unused between 11pm and 6am.
- Throughout the week, 59% of charges are initiated on weekdays, with 21% on Saturdays and 20% on Sundays.
- This charger has been used 131 times for a total duration of 242 hours 46 minutes and has consumed 1130 kWh of power, costing £153.26.

- 3.19 The total charging time across all 3 chargepoints is 3057 hours 10 minutes, consuming 12090 kWh of electricity. The total cost to the council of charging from March 2018 to the end of September 2019 is £1639.73.
- 3.20 Only one equipment fault has been reported to Portsmouth City Council across the 3 sites. This occurred at the Isambard Brunel site and was attributable to the user having a faulty cable. CityEV are the direct point of contact for users to report any issues and it is their responsibility to repair and maintain the chargepoints.
- 3.21 The parking bay at the Seafront Esplanade Car Park has been widened to 2.3 metres since original installation, as user feedback identified that the positioning of the bay made access sometimes problematic when cars were parked in the adjacent parking space.
- 3.22 Promotion of the chargepoints was jointly undertaken between CityEV and Portsmouth City Council at the installation stage. CityEV arranged for the chargepoints to be included on relevant live online maps of chargepoints for users to identify locations and real time availability.
- 3.23 Portsmouth City Council continues to meet its ongoing commitment of maintaining up to date chargepoint location information on its website.
- 3.24 Some complaints have been received from customers of the Isambard Brunel car park, where fully charged vehicles have remained connected to the chargepoint, thus occupying the charging bay for longer than necessary preventing other cars from charging. Portsmouth City Council are currently looking into ways of encouraging users to plan their charging which we hope will resolve these issues.
- 3.25 The council has been made aware of apps which allow for scheduled charging and charge point sharing and will investigate these to help address the issues at Isambard Brunel.

#### **4. Reasons for recommendations**

- 4.1 The off-street trial, originally planned for 2 years, has shown positive trends in usage and therefore the recommendation is that the trial be extended, as per the contract, by a further year and is continued in its existing format. Given that the Clarence Pier chargepoint became operational in December 2018, this extension

will allow for a little over 2 years of usage data to be gathered and collated for this location. The trial will continue to be monitored with all feedback being reviewed, to continue to improve and promote the use of the EV charging bays. This scheme forms part of a wider strategy to consider EV charging provision in the city, including further increased charging provision and the potential introduction of fees for use.

- 4.2 The electricity costs incurred to date are lower than predicted and therefore if the recommendation to continue is approved, the council would continue to subsidise the cost of electricity at these sites for the remainder of the trial so as to retain interest, attract more users and allow positive promotion of the service.
- 4.3 Following approval of this report, this trial will be monitored alongside work to develop the city's network of off-street charging locations to ensure we are supporting Government targets and the uptake of plug-in vehicles in the city whilst ensuring the solution best meets the needs of Portsmouth.

## **5. Impact Assessment**

This scheme impacts on Section B - Environment and Climate change within the Integrated Impact Assessment. Our aim is to encourage ownership of plug-in vehicles by making charging facilities available thus reducing the emissions of key pollutants and improving the air quality within the city.

An Equality Impact Assessment is not deemed necessary as the recommendations do not have a disproportionate negative impact on any of the specific protected characteristics as described in the Equality Act 2019.

## **6. Legal implications**

- 6.1 The continuation of the trial as recommended is within the scope of the existing service contract with CityEV. This contract was for an initial period of two years but extendable by one further year to a maximum three year contract period commencing on 30<sup>th</sup> January 2018.
- 6.2 Under that contract, following review, the Council had an option to introduce charging to members of the public using the charging points for electricity used but has not exercised that option to date for the reasons stated in the report.

## **7. Director of Finance's comments**

- 7.1 The total revenue cost of charging in the first 18 months of the trial was less than £2,000 and was absorbed by the Parking electricity budget. It is anticipated that the charging costs for the final year of the trial will be similar in value and will be funded in the same way.

- 7.2 The initial installation costs were funded by an approved parking reserve budget allocation. No additional installations are anticipated for the remainder of the trial. If the scheme is to be recommended for expansion in the future, this will be the subject of a further report, which would need to identify funding for the installation costs and for the associated revenue costs of the charging.

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Signed by:  
Tristan Samuels - Director of Regeneration

## Appendices:

### 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
Off-street electric vehicle chargepoint trial report to Cabinet Member for Traffic and Transportation July 2017	<a href="https://democracy.portsmouth.gov.uk/documents/s15815/Off-street%20Electric%20Vehicle%20Trial%20report.pdf">https://democracy.portsmouth.gov.uk/documents/s15815/Off-street%20Electric%20Vehicle%20Trial%20report.pdf</a>
Vehicles statistics Statistics and data about the number of licensed vehicles, new vehicle registrations and roadworthiness testing (including MOTs).	<a href="https://www.gov.uk/government/collections/vehicles-statistics">https://www.gov.uk/government/collections/vehicles-statistics</a> and <a href="https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01">https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01</a>
Reducing emissions from road transport: Road to Zero Strategy	<a href="https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy">https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy</a>
Cityline 100 Managed Lamp Post EVSE	<a href="http://cityev.net/wp-content/uploads/2017/04/Cityline-100-2.4-dataSheet-PLcopy.pdf">http://cityev.net/wp-content/uploads/2017/04/Cityline-100-2.4-dataSheet-PLcopy.pdf</a>

The recommendation(s) set out above were approved/ approved as amended/  
deferred/rejected by ..... on .....

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Signed by:  
Councillor Lynne Stagg - Cabinet Member for Traffic and Transportation