

## **BARNSLEY METROPOLITAN BOROUGH COUNCIL**

**This matter is not a Key Decision within the Council's definition and has not been included in the relevant Forward Plan**

### **Report of the Executive Director for Place**

#### **Installation of Electric Vehicle Charging Infrastructure**

##### **1. Purpose of Report**

- 1.1 The Council has secured funding from the Office for Low Emission Vehicles (OLEV) of £0.100M to support the installation of up to 45 dual Electric Vehicle Charging Points (EVCP) at key locations in the Town Centre, at leisure centres and each of the Principal Towns. Furthermore, the Council's Capital Oversight Board has identified match funding of £0.104M to allow this scheme to progress.
- 1.2 The Council has also approved, as part of its Fleet Replacement Strategy, capital funding of £0.100M to install EVCP infrastructure for new electric powered fleet vehicles.
- 1.3 It is intended that one procurement exercise is undertaken for both these projects; this report provides indicative costs and likely timescales and seeks approval to the approach to be adopted

##### **2. Recommendations**

**It is recommended that Cabinet:**

- 2.1 **Approve that the procurement for Electric Vehicle Charging Infrastructure to be provided in public car parks and the infrastructure to charge the Council's electric vehicle fleet be undertaken as one exercise.**
- 2.2 **Approve the procurement process to include the provision for a non-exclusive call-off arrangement with the appointed supplier. The arrangement would allow the Council to work strategically with the appointed supplier to meet future development plans within the contract period.**
- 2.3 **Approve Outright Purchase as the preferred option in relation to the provision of charging infrastructure for the Council's fleet vehicles.**
- 2.4 **Approve the Concession option as set out in relation to the provision of charging infrastructure at key locations throughout the Borough.**
- 2.5 **Delegate authority, following procurement, to the Executive Director of Place and the Council's Section 151 Officer, to undertake due diligence in the form of a financial appraisal of the successful tender bid.**

**2.6 Delegate authority, following procurement, to the Executive Director of Place and the Council's Section 151 Officer, to appoint a Provider.**

**3. Background**

- 3.1 The Council is developing a project to deliver up to 45 dual EVCP, capable of charging up to 90 vehicles simultaneously, at key locations within the Town Centre and also at our leisure centres and in each of the Principal Towns. The project aims to make use of OLEV funding of up to £100,000 which has now been secured. In order to access the funding the project must be completed within the current financial year.
- 3.2 Environment & Transport (E&T) are currently in the process of procuring 35 battery electric vehicles (BEV). EV charging infrastructure will be required at Smithies Lane Depot with provision for charging also required at the Crematorium and at Westgate Plaza.
- 3.3 Capital funding has been identified to cover the costs of installing EVCP for the new fleet vehicles. It is necessary that charging infrastructure is in place prior to the arrival of the new vehicles to ensure business continuity, preferably within Q3 of the financial year.
- 3.4 The procurement options, set out in section 4, refer specifically to EV charging for Fleet and carparks for which funding has already been secured. The draft Town Centre Parking Strategy includes an aim for 1 in 10 car parking spaces to have EV charging by 2025, and there are plans to expand the number of EVs in our fleet with the potential to have 100 fleet EVs by 2025.
- 3.5 The intention would be to include, in any procurement, the provision for a non-exclusive call-off arrangement with the appointed supplier. The arrangement would allow the Council to work strategically with the appointed supplier to meet future development plans within the contract period.

**4. Procurement options appraisal.**

- 4.1 In order to determine an appropriate procurement approach, it is necessary to consider both capital and revenue factors and how these impact on 1, the provision of infrastructure for Fleet and 2, the provision of infrastructure for public car parks.

EVCP installation consists of a number of **capital** items:

- Installation of electrical supply (if required);
- Installation of electrical equipment and metering;
- Installation of EVCP.

There is also a number of ongoing **revenue** costs associated with EVCP:

- Cost of electricity;
- Operation and Maintenance (O&M) agreement;
- Charge point Management System (CPMS) subscription.

- 4.2 Different capital and revenue factors apply when deciding on an appropriate approach. In broad terms there are three procurement models. These are:

**Option 1 Outright purchase and operation of network**

- The Council pays the full capital cost of all elements of installation;
- The Council is responsible for all ongoing revenue costs related to O&M issues;
- The Council keeps any revenue generated minus a transaction handling fee.

**Option 2 Lease**

- The EVCP operator pays the full capital cost of all elements of installation;
- The EVCP operator is responsible for all ongoing revenue costs related to O&M;
- The Council incurs a revenue cost for the lease;
- The Council keeps any revenue generated minus payment for transaction handling and cost of electricity (if provided by the supplier).

**Option 3 Concession Agreement**

- The Council pays the capital cost of installation;
- The EVCP operator is responsible for all ongoing revenue costs related to O&M;
- The Council retains a percentage of all revenue generated.

**5. Proposal and Justification**

**Fleet Charging Infrastructure**

- 5.1 In relation to the fleet infrastructure, it is proposed that the Council uses Option 1 Outright Purchase.
- 5.2 Outright Purchase has the advantage that it avoids significant ongoing revenue cost in the form of lease payments; capital funding has already been identified to support this option. The Council will still incur revenue costs in relation to maintenance, cost of electricity and management however these costs will be offset in savings in petrol and diesel.
- 5.3 The lease option is not recommended as the overall costs are likely to be greater than the cost of outright purchase as the supplier will pass on the cost of their own borrowing plus a margin. This option also contradicts the Council's approved Capital Investment Strategy in respect of incurring additional debt.
- 5.4 A concession arrangement is not recommended as the Council would be paying the supplier to charge our vehicles and would have limited control over the cost of purchased electricity.
- 5.5 The fleet charging infrastructure will be fully owned and operated by the Council and managed by the Council's asset management service.

## **Public Car Parking Infrastructure**

- 5.6 In relation to public car parking infrastructure, it is proposed that the Council adopts the Concession option. This would involve the Council funding the capital cost but the Operator being responsible for all maintenance and management. The revenue charged to individuals for the use of the chargers would be divided between the Council and the Operator.
- 5.7 This model has the advantage of passing responsibility for ongoing management and maintenance to the Operator whilst generating revenue income for the Council in the form of payments made by the users of the infrastructure. The Council has secured £100k grant from OLEV which has to be committed to capital spend and has also identified internal capital match.
- 5.8 The lease model is not considered viable because the income generated from the electricity sold would potentially not be sufficient, initially, to repay the capital and operating costs that would be incurred by the operator. Income from the EVCP is difficult to estimate as the rate of increase of new EVs on the road and the charging behaviour of drivers is not easy to predict with any certainty. This option also contradicts the Council's approved Capital Investment Strategy in respect of incurring additional debt.
- 5.9 This option would also require the Council to hand back the £100k grant secured from OLEV.
- 5.10 Option 1 Outright Purchase is not recommended as the Council would carry the risk that any income generated was less than the revenue costs of the ongoing operation and management of the infrastructure. As noted in 5.8 the income is difficult to model.
- 5.11 Once the initial contract period has elapsed the Council will own the infrastructure and have good quality data on the usage patterns and revenue surplus generated. At this point the Council can enter into a new concessionary agreement with a supplier, or just appoint a maintenance and CPMS provider
- 5.12 The public car parking infrastructure, though owned by the Council, will be the responsibility of the concession holder to operate and maintain to the agreed service level agreement.

## **6. Timescales**

- 6.1 It is a requirement of the OLEV funding that chargers are installed in public car parks by the end of the current financial year. It is business critical that chargers are installed for Fleet ideally in the current calendar year. This is not likely to be possible given the need to obtain approval to the tender process and to then approve.

<b>Cabinet Approval</b>	<b>Date</b>
DMT	9 September 2019
SMT	2 October 2019
Cabinet	16 October 2019

<b>Procurement Process</b>	
<b>Activity</b>	<b>Date</b>
Draft specification for review by legal and procurement and finance	End September 2019
Consult with Providers on appetite for the project to agree this best Framework to use	To be started asap and completed by end of Sept 2019
Finalise EIA and DPIA	By end of Sept 2019
Finalise Cabinet approval (Including call in)	22 October 2019
Issue Tender Documents	22 October 2019
Deadline for clarifications	8 November 2019
Tender Closing Date	20 November 2019
Quality responses to evaluation panel to review	27 November 2019
Evaluation moderation panel meeting	Between 22 November and 25 November 2019
Issue Intent to award Letters (Start of Standstill)	27 November 2019
Contract Award Issued	9 December 2019
Mobilisation Period (To allow Provider to order equipment with allowance for Christmas period)	16 December 2020
Contract Commencement Date (Installation)	1st January 2020
Completion of installation	March 2020

## **7. Implications for Local People / Service Users**

- 7.1 Public charge points are being placed in Council owned car-parks close to areas within our Town Centre and Principal Towns for use by residents who do not have access to off-street parking and may otherwise be unable to access the benefits of EV ownership
- 7.2 Council car-parks outside the Town Centre are generally free to use, and those within the Town Centre are free to use overnight between 1800 - 0800. Local residents will be able to use the car-parks overnight to charge their vehicles when required
- 7.3 The UK Government has made funding available to Local Authorities for this purpose and this is a key area of intervention for the Council in ensuring that all residents have access to charging infrastructure regardless of their housing type and location
- 7.4 The public charge points will also be accessible to members of the public, and to Council staff who use car-parks during the day when working
- 7.5 There will be a cost to use the public EVCP for all users. The Council will work with the appointed supplier to set the tariff and will retain control over the tariff to ensure that local residents are able to access the infrastructure in an affordable way

## **8. Financial Implications**

- 8.1 Consultations have taken place with representatives of the Service Director – Finance (S151 Officer).

- 8.2 This report seeks approval to procure an Electric Vehicle charging infrastructure provider.
- 8.3 The two projects included in this proposal are for the installation of 63 electric vehicle charging units. 18 Units will be for the use of charging the Council's new electric fleet vehicles and 45 units will be installed for the use of visitors and local residents. The proposed installation locations are Smithies Depot, Crematorium and Gateway Plaza and selected Public Car Parks located around the borough. The table below details the estimated purchase and installation costs.

<b>Expenditure Breakdown</b>	<b>EV Infrastructure Location</b>	
	<b>BMBC Fleet Depots</b>	<b>BMBC Public Car Parks</b>
Planned No. Units to be Installed	18	45
DNO costs	£ -	£ 36,480
7kW EVCP	£ 72,402	£ 91,324
22kW EVCP	£ 6,821	£ -
7kW installation	£ 20,000	£ 62,000
22kW installation	£ 5,000	£ -
Crash protection	£ 2,798	£ 6,996
<b>Total Estimated Capital Requirement</b>	<b>£ 107,022</b>	<b>£ 196,800</b>

- 8.4 Capital investment funding has been identified in the 2020 Capital Programme combined with specific grant funding from the Central Government Office for Low Emission Vehicles. The allocated funding is based upon the estimated requirements as detailed above. If costs rise then other non-committed schemes within the programme would need to be deprioritised to bridge any funding gap. The table below annotates the current funding provisions.

<b>Funding Breakdown</b>	<b>EV Infrastructure (£)</b>
Fleet Replacement Programme	100,000
2020 Capital Investment Fund	103,822
OLEV Grant Funding	100,000
<b>Allocated Capital Investment</b>	<b>303,822</b>

- 8.5 The OLEV grant funding has been awarded with conditions that stipulate an installation deadline of the 31<sup>st</sup> March 2020 and any unspent funds cannot be carried over into future financial years.
- 8.6 The depot installations will be an outright purchase including a subscription and licensing agreement with the preferred supplier. These costs are included in the capital investment proposal above.

- 8.7 The locations for the BMBC Fleet chargers will incur increased electricity costs which will be contained within Fleet Services' existing resources. Current estimates, based upon 10,000 miles per year, will need approximately 120,000 kWh @ £0.095 per kWh indicate this will be in the region of £0.011M per annum.
- 8.8 The public car park installations will be purchased using the capital investment monies as set aside in the 2020 Capital Programme and the OLEV grant funding to be awarded. These charging stations will be maintained by the supplier via a concession agreement for an initial period of 5 years. Following this time, the Council would look to reassess the options for continuation of the proposed agreement in terms of value for money.
- 8.9 The concession agreement relationship with the Council will include all revenue costs being incurred by the operator including all repairs and maintenance as well as the electricity required for the operation.
- 8.10 It is proposed to impose a charge on the use of EV charging points within public car parks. The proposed charge is estimated to be 30p/kWh. The national EV charging online resource Zap-Map uses 30p/kWh as a guide price when planning journeys in an EV for the cost of EV charging at public locations. Using this figure, together with an estimate of usage, it can be assumed that one public EV charging unit could generate an indicative net profit of around £2,000 per annum. The operator will receive the full income generated from the charging points.
- 8.11 The concession agreement means that the supplier and network operator will be required to pay the Council a proportion of any potential profit generated from the use of the EVCP network via a formal profit sharing arrangement. At this time, the detail of this proposed arrangement is unknown until the formal tender process has been concluded.
- 8.12 As per the recommendation at paragraph 2.4, appropriate due diligence will be undertaken by representatives of the Section 151 Officer in the form of a detailed financial appraisal following the tender process, which would look to ensure that the Council is protected from any risk and is receiving value for money.
- 8.13 The financial implications are summarised in the Appendix A to this report.

## **9. Legal Implications**

- 9.1 Public car-parking spaces adjacent to EVCP will be designated as EV only spaces and enforcement will be undertaken against any non-EV drivers parking in designated spaces.

## **10 Employee Implications**

- 10.1 Public EVCP will be provided in a number of locations which are potentially accessible to staff while working, including Churchfield and Sackville Street car-parks which are popular with staff working out of Gateway Plaza and Westgate Plaza. Staff using public EVCP will be charged at the same rate as members of the public.

- 10.2 There is also potential for EVCP intended for use for fleet vehicles to be used by staff during shifts when fleet vehicles are away from the depot. Again, the recommendation is that staff is charged at the same rate as the public when using EVCP.

## **11. Communications Implications**

- 11.1 The OLEV funding requires that we publicise the availability of EVCP for local residents. Press releases will be circulated ahead of the installations once a supplier has been appointed.

## **12. Consultations**

- 12.1 Two public car-park spaces next to each EVCP will be designated as EV only parking spaces and an Off-Road Parking Order will be required in order for the designation to be enforced by Parking Officers.
- 12.2 Designating parking spaces as EV only is necessary to ensure that the EVCP network is always available for the use of EV drivers.

## **13. The Corporate Plan and the Council's Performance Management Framework**

- 13.1 The project contributes directly the aims of the Transport Strategy and the draft Town Centre Parking Strategy.

## **14. Tackling Health Inequalities**

- 14.1 It is hoped that providing EVCP in public car-parks will encourage local residents without access to off-street parking to consider purchasing an EV. Parking a short distance from home will encourage users to combine some elements of active travel with their daily commute.
- 14.2 Facilitating the take-up of low emission vehicles such as EVs is an important action within the Council's Air Quality Action Plan, along with a commitment to reducing emissions from the Council's fleet. Procurement of EVCPs will demonstrate commitment to the Air Quality Action Plan, and will assist in the Council meeting legal health based air quality standards for the Borough, and contribute to reducing exposure to road traffic emissions for local stakeholders.

## **15. Risk Management Issues**

- 15.1 A number of risks have been identified as part of the development of the business case for the public car-parks project

Risk Detail	Probability and Impact	Mitigation
Technological – EV could be replaced with another technology, or charging technology could change	5	Keep contract period short, 5 years with option to extend to allow for market review



Risk Detail	Probability and Impact	Mitigation
EVCPs are not used	5	This is very probable initially. The impact will be assessed through due diligence via financial appraisal following completion of the tender process.
EVCPs are in wrong locations	5	Effort will be taken to site them correctly, and supplier will also be consulted once appointed. Financial risk that grant conditions would not be met due to location and grant repaid.
Residents are not able to access chargers when needed	4	Over time this may become an issue as the uptake of EVs increases, if necessary 'resident only' bays can be designated and access to chargers limited at certain times
Chargers are vandalised or damaged	5	Chargers will be insured and can also be moved if problems persist

15.2 Using EVs for fleet vehicles also presents some additional issues when compared to using diesel or petrol. In the event of local or regional power-outages it will not be possible to charge vehicles. These events are very rare.

15.3 As more of the Council fleet become dependent on electricity to operate it may be necessary to invest in local electricity storage and/or generation to ensure resilience and security of supply, as well as to have more control over costs.

## **16. Health, Safety, and Emergency Resilience Issues**

16.1 Emissions from transport account for 27% of the total greenhouse gas emissions in the UK. Vehicle transport using fossil fuels is a major contributor to air-pollution, which is a significant cause of premature death. Air quality in Barnsley is poor, and there are 7 air quality monitoring areas (AQMA) in the borough.

16.2 EVs do not emit any exhaust fumes and can provide significant improvements in local air quality as well as contributing to a reduction in the Borough's carbon emissions.

16.3 All EVCP installed will meet all recommended safety standards.

## **17. Compatibility with the European Convention on Human Rights**

17.1 Not applicable

## **18. Promoting Equality, Diversity, and Social Inclusion**

- 18.1 EVCP will be Pay-As-You-Go enabled so that users will be able to pay for their charging using a contactless bank card and no subscription to any specific supplier or network will be necessary in order to use the chargers. It will also be possible for users to call the network operator and make payment over the phone so that a smart-phone is not required in order to access the network.
- 18.2 The public EVCP will be positioned in car-parks which enable them to be used by residents who do not have access to off-street parking. These residents may be less likely to purchase an EV as they would not have security of being able to charge it.
- 18.3 Using the OLEV funding to provide EVCP in our public car-parks enables all residents to access the benefits of EV ownership regardless of whether they have access to off-street parking.
- 18.4 Where further demand for EVCP for use by residents without access to off-street parking is identified there is potential for a further bid to be made to OLEV for more funding

## **19. Reduction of Crime and Disorder**

- 19.1 Not applicable

## **20. Conservation of Biodiversity**

- 20.1 Not applicable

## **21. Glossary**

BEV	Battery Electric Vehicle
CPMS	Charge point Management System
DNO	District Network Operator
ESPO	Eastern Shires Purchasing Organisation
EV	Electric Vehicle
EVCP	Electric Vehicle Charge point
KW	kilowatt
KWh	kilowatt hour
NPG	Northern Powergrid
OLEV	Office of Low-Emission Vehicles
PBO	Public Buying Organisation

## **22. List of Appendices**

Appendix A: Financial Implications

## **23. Background Papers**

- 23.1 Outline Business Case & Full Business Case for Public EV Infrastructure

If you would like to inspect background papers for this report, please email [governance@barnsley.gov.uk](mailto:governance@barnsley.gov.uk) so that appropriate arrangements can be made

**Report author:** Richard Burnham