# **BRIEFING PAPER**

**SUBJECT:** EV charge points concession options appraisal and proposal

**DATE:** 21/10/2021

**RECIPIENT:** Councillor Harwood, Cabinet Member for Customer Service and

Transformation and Councillor Moulton, Deputy Leader and Cabinet

Member for Growth

#### 1. SUMMARY:

#### 1.1. This paper seeks to:

- Update the Cabinet Members on the outcomes of a thorough options appraisal on the public/private partnership arrangements that could be pursued (section 2 of the report);
- Update the Cabinet Members on the advantages and disadvantages of procuring a concession arrangement and the contractual complexities it may involve (sections 3.), and;
- Based on the above get a steer from the Members on the type of arrangement they would like to follow in order to initiate the appropriate procurement process (following the timeline set out in para 4.19). The formal decision will then be required to be taken to Cabinet on the 20 December.

#### 2. RECOMMENDATION:

2.1. Approve the recommended policy to undertake an open procurement process seeking a delivery partner for the operation and expansion of Southampton City Council's electric vehicle (EV) charging point network to provide additional destination charge points within city centre car parks and other strategic locations, as well as residential streets where off-street parking is not available and demand for charge points exists. The final procured arrangement will be operated as a Concession Contract, whereby a single supplier will be appointed to operate the EV charging scheme at no cost to the Council.

#### 3. BACKGROUND CONTEXT

#### Strategic fit

3.1. The Southampton: City of Opportunity 2021-2025 Corporate Plan sets outs a clear ambition for Southampton to be an entrepreneurial city that delivers business growth and new jobs and opportunities by being at the forefront of the journey to net carbon zero by 2050, with a specific commitment to 'Deliver Electric Vehicle (EV) charging across our estates'. This is therefore the principle focus of the procurement options

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evaluated below, whilst seeking a deliver an arrangement to manage and maintain the existing charge point assets under the authority's ownership in car parks and key city centre locations.

#### Previous charge point delivery

- 3.2. To date, a high proportion of public charge points have been installed through UK and devolved government funded grant schemes, along with local authority match funding, including those installed by the City Council to date.
- 3.3. One of the greatest challenges in encouraging widespread adoption of electric vehicles (EVs) is the "chicken and egg" relationship between EVs and charging infrastructure. Charging infrastructure needs to be in place to give consumers and businesses the confidence to purchase an EV. Yet, to provide appropriate numbers of charge points, there needs to be an understanding of the level of demand from potential EV users in order to be confident of an adequate return on investment.
- 3.4. However, as the EV charging infrastructure market has matured, so has the variety of procurement models and funding options available to public sector bodies as investor confidence has grown. Private sector partnerships and revenue share arrangements are becoming increasingly common and a viable consideration for some local authorities, depending on the circumstances.

#### Charge point types and applications

- 3.5. Charge point technologies are developing quickly, increasing in power and reducing in cost. Charge points are primarily categorised by their power, measured in kilowatts (kW), reflecting the speed at which they can charge an EV. The most common categories are:
  - Fast ∘ between 7-22kW ∘ most fast charge points are 22kW ∘ two to four hours to fully recharge, depending on the vehicle ∘ provide up to around 75 miles of range per hour ∘ useful at destinations where EVs are parked for a few hours (e.g. shopping centres). All existing public charge points installed by SCC to date fall within this category.
  - Rapid ∘ between 43-50kW ∘ most rapid charge points are 50kW ∘ 25-40 minutes for 80% recharge, depending on the vehicle ∘ provide around 100 miles of range in half an hour ∘ useful for EVs parked for a quick break (e.g. service stations, taxis, commercial vehicles). 2 charge points of this specification have been installed in Southampton specifically for the taxi trade.
  - Ultra-rapid ∘ over 50kW ∘ several ultra-rapid charge points range between 100kW

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or 150kW  $^{\circ}$  provide around 200 miles of range in half an hour  $^{\circ}$  at present, few existing EV models can accept an ultra-rapid charge, however newer models appearing on the market are now beginning to  $^{\circ}$  useful for EVs that need to refuel whilst in transit. Similar to refuelling at a petrol station. Significant supply capacity is required for this technology.

- 3.6. Different charge point types lend themselves to being used in different contexts. Typically, EVs will charge overnight at residential premises. In this context 'fast' (between 7-22KW) charge points are most appropriate and can be placed directly on the highway where properties don't have driveways (on-street) or wall-mounted where properties do have driveway parking (off-street).
- 3.7. Fast charge points are also appropriate for key destinations where people may have travelled some distance to get to. In this context they can provide a top-up charge to give confidence that there is sufficient range for the onward or return journey. Charge point capacity is linked to the duration of parking on offer and the likely dwell time of a driver i.e. if the car park is short stay there is less available time for a top-up charge and it is likely that a higher capacity charge point is required. Alternatively, if the car park is long-stay and drivers are likely to be in the car park throughout the day, then a lower capacity charge point is required.
- 3.8. For those in transit travelling a long distance requiring a top-up to complete their journey, rapid charge points or ultra-rapid charge points will fulfil a need. In most cases these will need to be situated on or near the strategic road network in motorway service stations or similar. This is often referred to as opportunity charging.
- 3.9. Many on-street public charge points are integrated into a free-standing column, similar in size to a bollard, whereas rapid chargers are more like a large parking payment machine.
- 3.10. Distinguishing between charge point types and uses is important in framing any future procurement exercise carried out by the authority. Some suppliers specialise in specific charging contexts or charge point technologies, and the authority will want to cater for specific needs in the city. Firstly, the authority will want to have an appropriate delivery arrangement for residential contexts where there is an emerging demand for on-street charge points. Secondly, for city centre and district centre destinations and in council-owned car parks. And finally, the potential for council-owned land and highways land on the periphery of the city in easy access of the strategic road network for opportunity charging for those in transit.
- 3.11. A city of Southampton's size has the potential for a large number of EV purchases which will lead to charge points having to be made available in both residential areas of the city which lack off-street parking, as well as providing destination and opportunity charge points within the city centre. These could come in many forms such as traditional on-street charge points/ or charging e-hubs/car parks.

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Early assessment work undertaken by the University of Southampton indicates that there would likely be approx. 190 streets where off-street parking is unavailable but where there may be early demand for charge points.

#### 4. OPTIONS APPRAISAL ON PROCUREMENT AND PARTNERSHIP ARRANGEMENTS:

- 4.1. The following options appraisal sets out the range of options open to Southampton City Council (SCC) to fund and manage public charge points including an outline of the existing method for procurement and installation using the Central Southern Framework. Alternative options in this paper include the On-Street Residential Charge Point Scheme operated by the Department for Transports (DfT) Office for Zero Emission Vehicles (OZEV), the Highways licensing approach adopted by Devon County Council and first trialled by Plymouth City Council and also an approach which uses a concession arrangement with a private partner. The current and alternatives options are summarised below.
- 4.2. To aid this options appraisal some informed assumptions were made to project future public charging requirements and the scale of investment required to meet these demands. A detailed technical assessment of EV infrastructure requirements is to be commissioned and concluded this financial year. Some high level and indicative modelling has highlighted that Southampton City will need approx. 230 charge points on-street charge points by 2023, these points do not include driveway off-street charging but points available to all users in residential settings and key destinations in the city. To reach this figure the investment would be approximately £2.5 million in value. This figure will be ratified and/or corrected by the more detailed technical work soon to be undertaken, but for the purposes of this report, the figure is used to frame our requirements of an immediate procurement.

#### SCC current operating model

4.3. 'Own & Operate' describes a commonly-used approach to date where the contracting local authority or other public body publish a tender inviting suppliers to submit a competitive offer to provide and install the charge point equipment, and manage the network for a set period. This can also be done via mini-competition on some existing procurement frameworks, or as a direct award on other approved single-supplier procurement frameworks.

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- 4.4. Currently procurement of EV charge points has been undertaken through the Central Southern Regional EVCP Framework (CSR) managed by Hampshire County Council and available to public sector organisations across the South of England. This framework was developed to provide sufficient flexibility for contracting authorities to account for the range of charge point needs set out in section 2 above, and to provide a range of business models covering the lifespan of a charge point.
- 4.5. The framework is flexible with few restrictions on the speed and type of charge point that can be procured, as long as the units are Open Charge Point Protocol (OCPP) compliant. OCPP compliance ensures interoperability between different charge point manufacturers, making the network easier to manage and more convenient to use across the entire region. The framework currently covers charge points for the SCC public sector fleets and multi-storey and surface car parks.
- 4.6. The Central Southern Regional EVCP Framework is a single-supplier framework that, after a competitive tendering process, was awarded to Joju Charging Ltd for two years, with an option to renew for a further two years. A single supplier framework has the advantage of offering consistent service delivery and simpler framework management. Framework users can select the level of installation and management services they require, including £1 initial feasibility studies.
- 4.7. Charge points installed through the framework can be publicly funded through local authority or grant capital or can be financed using private sector funds that are brokered by Joju Charging Ltd, or a combination of both. Whilst the framework is currently used under the 'own and operate' model it can be used to deliver charge points by the third party which are not under the authority's direct ownership, whilst also allowing the authority to benefit from a revenue share arrangement.
- 4.8. Joju offers an income share to the contracting authority of a 10% rebate on the energy cost per kWh. While this represents a relatively low, and varying, income stream it is an attractive option as it is guaranteed from the start of operation, not only once the charge point is profitable.
- 4.9. The framework is used throughout the lifecycle of a particular project, from the site feasibility study, liaising with the DNO to establish a grid connection, undertaking any civils works, and then installation works.
- 4.10. The framework also covers future maintenance and back office functions of the charge points. Joju Charging Ltd through the framework have certain response targets that they need to hit and also provide regular usage data.
- 4.11. Using this framework the capital costs are currently funded by the local authority, potentially with a capital contribution from a central government grant. Following procurement, the charging infrastructure is owned by the authority, which receives all revenue (if a cost for electric is applied) and typically pays a monthly fee

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to a supplier for operation and maintenance. Table 1 summarises the advantages and disadvantages of this approach.

4.12. Various national frameworks are available to simplify charge point procurement for public sector bodies and ensure that the procurement process is compliant with UK/EU legislation. SCC currently operates the own & operate model via the Southern Central framework

Table 1: Evaluation of the 'Own & Operate' model from the perspective of local authorities.

Advantages	Disadvantages	
<ul> <li>local authority retains full ownership of</li> </ul>	limited central government and local	
the charging network and collects	authority funds available	
revenues		
	use of public funds comes with	
local authority can determine	accountability to taxpayer and therefore	
locations, irrespective of commercial	political risk	
viability, ensuring equity of access for	non-in-mont for local cuttority to some	
residents and businesses	• requirement for local authority to cover	
- agains progurament route as more	costs for ongoing operation,	
<ul> <li>easier procurement route as more familiar and requires less involvement</li> </ul>	maintenance and upgrade	
from legal, procurement and property	local authority may become the owners	
teams	of low value or redundant equipment as	
touris	charging infrastructure market and	
likely to be a quicker process, leading	technology is developing rapidly	
to faster network growth	teermenegy is developing rapidly	
3	local authority carries the risks of	
<ul> <li>national procurement frameworks</li> </ul>	unexpected costs and the reputational	
available to streamline process and	risk if the network is unreliable	
ensure confidence in suppliers.		
	missed KPIs/SLAs may be more	
	difficult to enforce.	

#### Match Funding through the OZEV grant

- 4.13. Local authorities are able to submit applications to the On-Street Residential Charge Point Scheme, referred to as 'the scheme' throughout this report.
- 4.14. The purpose of the scheme is to increase the availability of on-street charge points in residential streets where off-street parking is not available, thereby ensuring that on-street parking is not a barrier to realising the benefits of owning a plug-in EV.
- 4.15. The scheme gives local authorities access to grant funding that can be used to part-fund the procurement and installation of on-street EV charge point infrastructure

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to residential needs, in line with the minimum technical specifications.

Table 2: Evaluation of the 'OZEV Grant' model from the perspective of local authorities.

Advantages	Disadvantages	
OZEV will fund up to £13,000 per	• some use of public funds (25%) come	
charge point	with accountability to taxpayer and	
	therefore political risk	
There is no strict maximum or		
minimum project size, although projects	requirement for local authority to cover	
must be deliverable within appropriate timeframes.	costs for ongoing operation,	
umerrames.	maintenance and upgrade	
• The funding available is for 75% of the	The location of the charge points is	
capital costs of procuring and installing	restricted to residential areas with	
the charge point and an associated	limited off-street parking	
dedicated parking bay (where		
applicable), in line with OZEV's	local authority carries the risks of	
minimum technical specifications.	unexpected costs and the reputational	
	risk if the network is unreliable	
national procurement frameworks		
available to streamline process and ensure confidence in suppliers.		
ensure connuence in suppliers.		

4.16. To date, most central government grant schemes for charging infrastructure cover 75% of the eligible capital costs. This reduces the up-front financial burden that local authorities face when installing charging infrastructure. Typically, this funding is used alongside the 'own and operate' model. However, whilst bids need to be submitted and managed by the Local Authority, the remaining 25% can be covered by the local authority but in some cases, EV charge point operators have provided this match-funding. Where central government funding is not available, private sector funding could be matched directly against local authority capital. As a result, there will need to be an agreement on equipment ownership and/or upgrades throughout and at the end of the contract.

#### **Devon County Council Highways License Model**

4.17. There is a possibility to incorporate charge point installation into the existing Highways Agreement but there is not enough information at this stage to confirm if this is a viable approach for SCC. Officers are following up with Devon County Council for more detail and the benefits of this potential option.

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#### 5. CONCESSION ARRANGEMENT

- 5.1. Through a concession contract, the operational costs and risks are shared, in part or completely, with a charge point provider.
- 5.2. The sector is maturing quickly but concession contracts are most likely to be successful where operators can be confident that the charge points will be profitable. Compromising on locations and offering longer contract terms may be necessary to attract charge point operators to invest. This contract has been used by other authorities to service all types of charging, but is mainly focused on destination charging, as mentioned previously these are areas where people are likely to park for longer periods and tend use slower/longer charges. Through our soft market testing concession arrangements can be used for residential on-street charging.
- 5.3. Developing or using a concession contract is advantageous where the overriding concern and motivation is to minimise costs and risk for the local authority while providing a functional charging infrastructure network. Disadvantages include reduced revenue generation for the authority, reduced control over charge point locations and an initial infrastructure roll-out may take longer while contractual terms are agreed. See the summary in Table 2.

Table 2: Evaluation of concession frameworks from the perspective of local authority.

Advantages	Disadvantages	
some income shared by the	• in comparison to full ownership,	
concessionaire with local authority	reduced income share for local authorities	
<ul> <li>charge point operator incentivised and responsible for the maintenance</li> </ul>	as relatively novel procurement	
of the network, leading to a better end-	model, likely to require more dialogue	
user service	within a local authority and time spent	
	developing the tender requirements/	
<ul> <li>reduced risk for the local authority, in</li> </ul>	specification	
terms of maintenance and ensuring		
income generated covers ongoing	<ul> <li>contractual award and negotiations</li> </ul>	

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#### costs

- depending on the agreement, the local authority may retain ownership of the equipment or underground electrical connections which are valuable as the basis of any future network
- depending on the terms of contract renewal, the winning bibber may be responsible for updating and refreshing the equipment and software, future proofing the network.

discussions may slow down network delivery, leading to a reputational risk and dissatisfied EV owners

- not all charge point companies are willing or able to accept the terms of a concession framework, reducing the choice of suppliers
- only likely to be a successful tender exercise where charge points are profitable, or on a sufficient regional scale to allow some cross-subsidisation and risk balancing.
- concession contracts are restricted to 5 years and typically suppliers in this market are looking for a 10 year+ contract to ensure ROI at a reasonable pace to the EV charging usage.

#### **Market Offer**

- 5.4. We have conducted soft market testing with a number of companies. The purpose of these meetings was to ascertain the services/technologies on offer and what we might expect if working in a public/private partnership.
- 5.5. The type of offering varies with some companies such as only providing rapid charge points (typically for opportunity charging) with others offering all types of chargers or agnostic hardware options. We also established that these companies are able to provide an all-encompassing service, from site selection through to installation and management.
- 5.6. Below is a brief outline of some of market offerings from the companies we have contacted.

#### Supplier A offer and ask

Offer	Ask
<ul> <li>Supplier A would provide of stations feature both CC CHAdeMO connectors and the</li> </ul>	CS and Freeholder agreements
can be used with all DC corvehicles. These modular u	

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- capable of delivering a 120kW charging from day one, and will be upgraded to deliver higher charge rates as required.
- 2 chargers installed, subject to available space due diligence and available power.
- Fully funded installation comprehensive maintenance and support and all future expansion and upgrades funded by Supplier A
- Supplier A pays up to £2000 VAT towards legal fees in respect of agreeing the lease documentation
- £1000 Annual rent per charger, RPI linked, or 10 net profit (whichever is the greater)

- All bays will be rapid hubs and designated for EV charging only
- Lease/ Licence needed for each site
- Supplier A conducts site selection with the LA
- All infrastructure will be owned by Supplier A.

5.7. It should be noted that due to the nature of Supplier A model, where they primarily focus on rapid charge point hubs this offering focuses on opportunity charging, they will be located in strategic areas such as city centres and off main arterial routes.

#### Supplier B offer and ask

Offer	Ask	
<ul> <li>Supplier B will pay for the supply and installation of On-street Electric</li> </ul>	A non-exclusive 15 year agreement	
Vehicle Chargers	<ul> <li>LA enters into MoU and subsequent LA Agreement</li> </ul>	
<ul> <li>Supplier B will set up E-charging hubs within City Centre locations</li> </ul>	<ul> <li>All bays need to be designated for E\ charging only</li> </ul>	
<ul> <li>Includes Slow, Fast and Rapid Chargers</li> </ul>	Bays need to be accessible for users	
They would seek to provide a flat charging rate of £0.30per KWH +	Lease/ Licence needed for each site	
small connection fee	<ul> <li>Supplier B conducts site selection with the LA</li> </ul>	

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- Profit share for Local Authority is available
- Dedicated Town/ Transport Planning manager to help design your EVCP network
- Full proactive & reactive maintenance
- 24h helpline for customers
- £2,000 to help towards legal costs
- Indemnity insurance up to £10 Million per location for loss, liability or expense

- All infrastructure will be owned by Supplier B
- LA maintains control of customer tariff

5.8. It should be noted that due to the nature of Supplier B model, they are able to provide residential charging alongside opportunity/city centre charging hubs.

#### Supplier C offer and ask

### Offer

- Supplier C will pay for the supply and installation of On-street Electric Vehicle Chargers
- 3rd party finance offering for public bodies looking to install charge points off balance sheet.
- Private sector funding partner is a leading supplier of wind-generated electricity to the UK.
- Ideal car park locations for EVCI for private sector finance are those that have more than 20 parking bays and high usage, are not located close to other (i.e. competing) EVCI, and can be enforced to ensure that only charging vehicles occupy the bays. EVCI deployed on-street and elsewhere can also be considered for

#### Ask

- All bays need to be designated for EV charging only
- Bays need to be accessible for users
- Lease/ Licence needed for each site
- Supplier C conducts site selection with the LA
- All infrastructure will be owned by Supplier C
- Supplier C maintains control of customer tariff

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funding.

- Profit share for Local Authority is available
- Dedicated account manager to conduct a feasibility study allowing assessment of sites and see which sites would be eligible for 3rd party finance.
- Full proactive & reactive maintenance
- Flexibility of funding models, including, fully funded by Supplier C, self-funded by authority and funding through the OZEV grant

#### The Proposal

- 5.9. On the basis that the authority shifts emphasis away from operating under an 'own & operate model' for future charge point installations, it is advised that clear terms of reference are established which set out the local authority's expectations of a supplier and standards which would need to be held to. These could then be carried forward under a Concession Agreement with targets including the minimum number of EV charge points expected to be installed, and an expectation to adopt the Council's existing network of public EV charge points. An assessment of their value would need to be undertaken.
- 5.10. Furthermore the terms of the Concession will need to stipulate that the supplier would be responsible for each stage in the delivery of a charge point including feasibility, installation, liaison with the District Network Operator (DNO) to secure connection licenses, repair and maintenance, signage, back office monitoring, promotion of the network and customer support. It has been indicated from soft marketing discussions that a profit share would be available with all the suppliers we approached.
- 5.11. The Concession contract we would look to adopt is a mixed contract (both Works and Services) and whichever provision characterises the main subject-matter of the contract will determine if the overarching contract is works or services. At this stage we suggest it will be a services contract given the significant time spent prior to installation and on post-installation maintenance, management and customer service.
- 5.12. The Concession contract would also need to state that charge points are to be considered in all areas of the city and cover both residential areas alongside the city

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centre.

#### **Resource implications**

5.13. The Concession contract will be at no cost to the council and will not require any capital investment from the council. However, it will require officer time for the procurement, set up and ongoing monitoring and management of the contract, which will necessitate an ongoing revenue cost to the authority. The preliminary Concession development and procurement work will be absorbed within existing resource. Following the adoption of the Concession Agreement officer resource will be required for contract management, and to provide project management resource to manage EV incentives, promotion and future planning to inform the concession arrangement.

#### Risk management

- 5.14. Procurement will be undertaken with advice from the commercial services team and obtaining guidance from other Local Authorities.
- 5.15. There is a small risk that there will not be interest in bidding for the contract, in which case Business-As-Usual would resume until feedback is reviewed and a new way forward found. Existing capital budgets would then represent the limit of what could be delivered but with future efforts focussed on securing additional external Government grant funding as match to maximise how Council budgets can be applied, or consideration can be given to amending the contractual relationship with the existing supplier under the Southern Central EVCP framework.
- 5.16. As a concession contract will result in no upfront or ongoing costs to the council it will remove an existing financial overhead to the local authority, and the associated risks involved with managing a EV charge point network. The service provider would be responsible for the day to day operation and management of the network as well as increasing provision of charge points in line with the contract.
- 5.17. Specification development will take approximately 6-8 weeks once approval has been received, this will be conducted alongside the procurement, commercial and legal teams to ensure the right provider is appointed to provide a good quality of service.
- 5.18. Once the specification and associated documentation has been produced, the tender pack will be launched on the Supply Southampton portal.
- 5.19. Any questions relating to the Invitation to Tender (ITT) will need to be submitted before clarification deadline set out in Procurement Timetable below.
- 5.20. Once tenders have been received, a careful process of assessment must be undertaken to identify the preferred tenderer. The assessments will consider some of the following criteria:

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Stage	Time	Date of completion
Specification Development	6-8 weeks	End of November
Legal Review and Approval	TBA	End of November
PPP Approval	3 weeks	End of Dec 2021
Final Tender Pack Approval	2 weeks	End of Dec 2021
Dispatch Date for Invitations to Tender (ITT)	4 weeks (minimum)	Jan 2022
- Site Visit	TBA (during ITT)	Jan 2022
- ITT Clarification Deadline	TBA (during ITT and after the clarifications)	Beginning of Jan 2022
Evaluation of Responses	4-6 weeks (including moderation)	Feb 2022
Standstill	2 weeks	
Award	March 2022	-
Contract Signing Date		-
Mobilisation		TBC
Milestone 1: Design		
Milestone 2: Works		TBC

- Price
- Relevant experience
- Understanding of the requirements
- Past performance
- Technical skills

#### Format of the Concession and Timelines:

5.21. Given the potential contract value, and its impact on more than 2 wards in the city, this report will need to be tabled at **Cabinet on 20 December** as a key decision to trigger the procurement process. This can take place in concurrence with the development of the specification so will not impede the timeline as set out above.

#### Recommendation(s)

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5.22. That the Council undertake an open procurement process seeking a delivery partner for the operation and expansion of Southampton City Council's electric vehicle (EV) charging point network to provide additional destination charge points within the city centre car parks and strategic locations, as well as residential streets where off-street parking is not available and demand for charge points exists. The final procured arrangement will be operated as a Concession Contract, whereby a single supplier will be appointed to operate the EV charging scheme at no cost to the Council.

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