



Report to Policy Committee

Author/Lead Officer of Report: Jenny Wood,
Senior Transport Planner, City Futures

Tel: 0114 205 3073

Report of: Kate Martin, City Futures

Report to: Transport, Regeneration and Climate

Date of Decision: 16/03/23

Subject: Future for the provision of electric vehicle charging points

Has an Equality Impact Assessment (EIA) been undertaken?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
If YES, what EIA reference number has it been given? 1464				
Has appropriate consultation taken place?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Has a Climate Impact Assessment (CIA) been undertaken?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Does the report contain confidential or exempt information?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>

Purpose of Report:

This report follows on from action contained within the Transport and Regeneration Committee report, *Electric Vehicle Public Charging Infrastructure Update and Short-Term Action Plan, 21st September 2022*, to develop a procurement proposal for a commercial partner(s) to work with Sheffield City Council to deliver EV charging infrastructure.

Under the proposal:

- An external provider(s) would be appointed with the capability and expertise to support SCC in developing strategic funding bids to support the development of a commercially sustainable electric vehicle charging network
- The external provider(s) would carry out site selection and feasibility, as appropriate, invest in, own and be responsible for public electric vehicle charging points (including operation and maintenance) rolled out under individual contract orders (which would be subject to separate approvals)
- Ownership of the underground infrastructure, where appropriate, would be expected to return to SCC at the end of the contract

The proposal provides opportunity to support the development of a commercially sustainable network of public electric vehicle chargepoints for residents, businesses and visitors to the City; and

- A significant reduction in financial risk to the Council in delivering electric vehicle charging infrastructure
- The ability to bring in private investment to match government funding and further expand the available network whilst reducing reliance on public funding
- The ability to access private sector skills, expertise and knowledge to support the development of a commercially sustainable electric vehicle charging network

Recommendations:

It is recommended that the Transport, Regeneration, and Climate Policy Committee:

1. Approves the completion of a commissioning and procurement exercise to appoint external provider(s) capable of providing public electric vehicle chargepoint solutions for residents, businesses and visitors to Sheffield; and
2. Authorises the Executive Director, City Futures, in consultation with the Director of Finance and Commercial Services and the Director of Legal and Governance to procure and enter into contract with provider(s) for this purpose.
3. Note that any expenditure under the appointed contract(s) will be subject to separate authorisation.

Background Papers:

- Electric Vehicle Public Charging Infrastructure Update and Short-Term Action Plan, Report to Transport, Regeneration and Climate Committee, 21st September 2022
- Equality Impact Assessment (reference 1464)
- Climate Impact Assessment

Lead Officer to complete:-		
1	I have consulted the relevant departments in respect of any relevant implications indicated on the Statutory and Council Policy Checklist, and comments have been incorporated / additional forms completed / EIA completed, where required.	Finance: <i>Holly Nicholl</i>
		Legal: <i>Courtney Hill</i>
		Equalities & Consultation: <i>Ed Sexton</i>
		Climate: <i>Jessica Rick</i>
<i>Legal, financial/commercial and equalities implications must be included within the report and the name of the officer consulted must be included above.</i>		
2	EMT member who approved submission:	<i>Kate Martin</i>
3	Committee Chair consulted:	<i>Councillor Mazher Iqbal</i>
4	I confirm that all necessary approval has been obtained in respect of the implications indicated on the Statutory and Council Policy Checklist and that the report has been approved for submission to the Committee by the EMT member indicated at 2. In addition, any additional forms have been completed and signed off as required at 1.	
	Lead Officer Name: <i>Jenny Wood</i>	Job Title: <i>Senior Transport Planner</i>
	Date: <i>02/03/23</i>	

1. PROPOSAL

1.1. The proposal is for the Council to commission external provider(s) to deliver public electric vehicle charging infrastructure in Sheffield under contract(s) that will continue for up to 20 years. It is anticipated that the contract(s) will be awarded for a value up to £15m (public funding). The contract(s) would, subject to project approvals, grant awards and compatible terms of funding and timescales, deliver electric vehicle charging infrastructure funded through the Clean Air Zone as well as the governments On Street Residential Chargepoint scheme and Local Electric Vehicle Infrastructure Fund and any further funds that may become available.

1.2. Background

- Sheffield City Council has declared a Climate Emergency and is working towards Sheffield becoming a zero-carbon city by the start of the next decade. Electric vehicles (EVs), alongside modal shift to walking, cycling and public transport, will be crucial to meet this goal, as well as contributing to improved air quality, and so health, in the City.
- By 2030, government anticipate there will be up to 10 million battery electric vehicles on the road and around 300,000 public chargepoints needed as a minimum in the UK.
- In January 2023 however there were just 37, 055 public chargepoints in the UK (55.3 per 100,000 population) with 157 of these in Sheffield providing 28.3 chargepoints per 100,000 population¹. A catalysing increase in the number of publicly available chargepoints is needed in the coming years.
- On the 21st September 2022 a report was brought to the Transport, Regeneration and Climate Committee where a number of short term actions were agreed to progress the delivery of public electric vehicle charging infrastructure in Sheffield. This included the action to develop a procurement proposal for a commercial partner(s) to work with Sheffield City Council to deliver EV charging infrastructure through a concession agreement.

1.3. Strategic Approach

- SCC intends to bid for future funding to support the roll out of residential charging based around a local charging hub model² prioritising areas where there is greatest demand / future need as set out in *Electric Vehicle Public Charging Infrastructure Update and*

¹ [Electric vehicle charging device statistics: January 2023 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/electric-vehicle-charging-device-statistics-january-2023)

² A local charging hub will consist of a, or a number of, public EV charging units located to serve nearby residents. This could be on highway, in local a car park or other local site. Hubs will be incorporated into existing parking bays (or street furniture if feasible) wherever possible. Where facilities for local charging hubs are provided on highway, locations away from direct frontages are preferred with build outs off the footway. This is to minimise the impact on residents and other users. Where a build out into the carriageway is not feasible a minimum footway width in line within the Inclusive Mobility Guidelines must be maintained. Innovative on street home charging solutions will continue to be investigated and may be used in addition to the local hub model where feasible.

See *Electric Vehicle Public Charging Infrastructure Update and Short-Term Action Plan, Report to TRC Committee, 21st September 2022*

Short-Term Action Plan, Report to Transport, Regeneration and Climate Committee, 21st September 2022. Alternative delivery options to that proposed which were considered are set out in section 5.

- We would expect any external chargepoint provider to demonstrate how they would propose to support us in achieving at least the minimum public residential EVCP requirement as set out by the TfN model utilising On Street Residential Chargepoint scheme (ORCs) and Local Electric Vehicle Infrastructure (LEVI) bids [See Appendix B] as well as a number of en-route hubs utilising CAF funding [See 1.5].
- Not only will the chargepoint provider(s) be required to work with SCC towards absolute numbers SCC will expect to see equitable development proportional to the MSOA split indicated by the TfN model unless otherwise agreed (for example due to a lack of available sites or that it can be shown not to be financially viable/ value for money)
- The provider(s) will be expected to work with SCC to contribute to the development of a charging network that responds to developing national and local strategy positions, legislation and guidelines as well as rapidly changing technologies.

1.4. Current Infrastructure and Delivery Model

- The Council's current network of 27 Rapid EV chargers³ was funded via the governments Early Measures Fund and Office for Low Emission Vehicles and National Highways (previously Highways England) and delivered via a Own and Operate model [see Appendix A for model explanation] with associated financial and reputational risk sitting with Sheffield City Council.
- In 2022/23 an additional 48 single chargers have been installed with Get Britain Building funding via the South Yorkshire Mayoral Combined Authority under a separate Own and Operate contract.
- The financial impact of delivering charging facilities under an 'own and operate' model within Council owned car parks and sites (due to for example electrical standing charges / cost, maintenance and operation, renewal or decommissioning against projected income) was considered as part of individual project approvals. However current electricity price volatility has meant that the current tariff does not fully cover electricity prices or include provision to deal with issues such as vandalism. This is however being reviewed, see Electric Vehicle Charger Fees and Chargers report to Waste and Street Scene Policy Committee, 15th February 2023 ([Waste & Street Scene Policy Committee on Wednesday 15 February 2023, 2.00 pm](#))
- Unless additional funding is found at the end of these contracts (anticipated to be 03/27 and 03/28 respectively) to operate and maintain / upgrade (as required) the chargers they may fail and / or become redundant and have to be removed. This would be a further cost burden to the Council. It is therefore proposed that this

³ 20 became operational in 21/22 and 7 are to come into operation shortly following the resolution of contractual issues related to the original supplier going into administration. 10 of the rapid chargers are taxi only as a condition of the funding.

infrastructure would be accrued into the new contract(s) at this point, if feasible, see 1.5.

1.5. Future Funding and Infrastructure

- Funding in the region of £1.16m is available to support the development of EV charging points across Sheffield and Rotherham from the Department for Environment, Food and Rural Affairs via the Clean Air Fund following the approval of the Clean Air Zone Full Business Plan by government on 13 July 2022.
- In addition following the report that was brought to the Transport, Regeneration and Climate Committee on 21st September 2022 it was agreed that Sheffield City Council would bid for On Street Residential Chargepoint Scheme (ORCs) funding (subject to approval of appropriate match funding and delivery model as necessary) and develop a proposal for the Local Electric Vehicle Infrastructure (LEVI) fund either as SCC, or as part of a SY MCA led consortium.
- It is proposed that the procurement of external provider(s) would allow for the strategic delivery of public electric vehicle charging infrastructure in Sheffield utilising these funds (subject to agreement and the grant terms of funding being compatible) alongside private investment from the external provider(s), as well as any further funds (subject to agreement) that may become available
- We would also be looking for the external provider(s) to take over the ownership, maintenance and operation of our existing infrastructure once current contracts come to an end (Up to 29 rapid (50kW) chargers and 46 fast (7kW) chargers) (additions / deletions to be agreed between both parties)
- In parallel we are investigating a separate trial of electric vehicle charging infrastructure linked to street lighting columns. The aim being to work through the technical issues associated with charging from Sheffield's existing infrastructure and understand the commercial viability as well as practical issues with the approach.

1.6. Proposed Model

- It is recommended that contract(s) are put into place that allow for future public charging infrastructure in Sheffield to be developed with external provider(s). These are expected to take the form of concession agreements [see Appendix A for explanation of concession agreements] or similar, to achieve the encouragement of private sector investment, begin to reduce reliance on government grants and minimise risk to the local authority.
- Informal discussions with a number of external providers suggests that there is interest from the market in the proposed model.
- Under this model we would be looking for a provider(s) who would work with us:
 - towards our aim of all residents, businesses and visitors in Sheffield being able to access reliable, commercially sustainable, electric vehicle charging infrastructure

- to deliver on and support development of our strategic approach [see section 1.3] and proposals to roll out public EV charging facilities in the City
- to invest in and deliver residential, destination and hub charging across the City, and work with us to secure further public investment to support this
- The provider(s) would be responsible for:
 - Demand modelling / input into strategy development
 - Selection of sites (where appropriate and subject to agreement with Sheffield City Council) and feasibility
 - Installation and maintenance of underground infrastructure (to revert to SCC ownership at end of contract where appropriate)
 - Installation, operation and maintenance of overground infrastructure
 - Support in the development of funding bids (and meeting the terms and conditions of these bids)
- The procurement exercise will aim to maximise the level of private sector investment whilst meeting our strategic ambitions [section 1.3]
- The contract(s) would not give full exclusivity to the provider to allow for future competition and also the development of pilots and / or future technologies in parallel as appropriate.

1.7. Challenges and Opportunities

- Electric vehicle charging technologies and systems are developing at a pace, as are the requirements and regulations associated with them. Any long-term contract must account for this.
- There is currently a lack of guidance around the provision of disabled spaces and customer facilities for example booking and payment methods for electric vehicle charging. The external provider(s) will be required to work with us to meet the Council's obligations under the public sector equality duty.
- The use of Sheffield City Council public car parks and / or land has financial implications and many calls so will be subject to agreement on a site by site basis
- The Streets Ahead contract means that highways maintenance in Sheffield is undertaken by Amey. If works are to take place on the highway all appropriate consents will have to be obtained by the provider. Arrangements for ground works, signing, lining and Traffic Regulation Orders for example (whether to be undertaken by the provider or Council / Amey and how they are funded, either by the provider or from available grants) will form part of the contract development.
- As the owner / operator of the electric vehicle charging facilities the external provider(s) would likely expect to have control over the tariff charged. Sheffield City Council will need to ensure through the procurement that a market competitive price is maintained to ensure value for its residents.
- There is a potential opportunity for the council to negotiate an income stream via this contract. This, although likely to be limited, will be tested via the market to be used to cover revenue costs associated

with contract management and future planning for electric vehicle charging infrastructure / other associated costs. Any further income may be reflected in additional liabilities, or the price paid by customers and would only be sought where this was not the case.

- Long term contract management arrangements within the Council need to be confirmed to ensure projects are delivered, performance indicators met, and any issues dealt with in a timely fashion.

2. HOW DOES THIS DECISION CONTRIBUTE?

1.8. The Council has declared a climate emergency which necessitates a move away from the use of traditional fossil fuels, to cleaner technologies such as electric. SCC is working towards Sheffield becoming a zero-carbon city by the end of the next decade.

1.9. This report supports the initial strategic priority of the developing Corporate Plan of Clean Economic Growth. Delivering on the key issue of the Climate Emergency and supporting the Clean Air Zone. The 10 Point Plan for Climate Action includes that we will work to ensure we have the planning and infrastructure we need for the future, including investing in our transport infrastructure.

1.10. The Sheffield City Region Transport Strategy 2018-2040 (the statutory Local Transport Plan for South Yorkshire) recognises the need to increase EV charging points in the region in order to encourage large scale uptake of electric vehicles. The Council's Transport Strategy (March 2019) also sets out the need to plan for charging infrastructure at home, at key destinations and at work so we are ready for a clean future

1.11. The government has committed to ending the sale of new petrol and diesel cars and vans by 2030. Roll out of public electric vehicle charging infrastructure will help facilitate this switch to Ultra Low Emission / electric vehicles, supporting the economy (businesses and visitors) as well as a more inclusive transition for those that do not have access to off street parking.

1.12. The recommendation also supports the Council's goal to ensure SCC's financial stability and sustainability by proposing a model which provides the opportunity to cover or contribute to the annual revenue cost to the Council of delivering public electric vehicle charging infrastructure.

3. HAS THERE BEEN ANY CONSULTATION?

1.13. There has not been a public consultation regarding this proposal specifically.

1.14. Specific locations for charging facilities will be developed with the external provider(s) once they are in place and consulted upon as appropriate, for example this might include Ward Members, Local Area Committees, landowners (if applicable), businesses and residents.

1.15. The Centre for Behavioural Science and Applied Psychology, Sheffield Hallam University also carried out a piece work⁴ for Sheffield Council in 2021 examining Barriers and Facilitators to Electric Car Purchase and Confidence in Charging Capabilities in Sheffield and Rotherham. Amongst other outcomes this found:

- Of the 39.8% of respondents willing to walk to a charging point (65.4% had access to a driveway or off street parking), 27.4% would walk 5 minutes or less (this fell to 13.1% for 10 minutes or less)
- 42.7% disagreed or strongly disagreed that there were enough charging points in the city (45.8% didn't know)

1.16. Increasing the number of public charging points for electric cars was a popular 'other' suggestion during the consultation carried out in relation to the Clean Air Zone, where in addition to the high cost of electric vehicles, the lack of electric vehicle charging points was highlighted as a key barrier to investing in cleaner vehicles.

4 RISK ANALYSIS AND IMPLICATIONS OF THE DECISION

4.1 Equality Implications

- The proposal contributes towards addressing health inequalities and other causes and identifiers of inequality in Sheffield.
- An Equality Impact Assessment has been developed and will need to be kept under review and updated to reflect the development of the procurement and subsequent roll-out of the chargepoint infrastructure. This reflects the above point in this report that the external provider will be required to work with us to meet the Council's obligations under the public sector equality duty.
- The EIA notes likely impacts in relation to:
 - Disability (also noting the above comment in this report about disabled spaces)
 - Health
 - Age
 - Race (specifically the need to provide information in languages other than English, based on 2021 Census data), and
- Poverty & Financial Inclusion (an aim to ensure that residents have access to market competitive tariffs)

4.2 Financial and Commercial Implications

- There are no financial implications for the Council arising directly from this report. Actions will be progressed within current staffing resources. Any additional requirements – whether staffing or budgetary - will be brought forward for additional approvals as required. Electric vehicle charge point delivery will be funded from external grant funding. Sheffield City Council may wish to provide additional funding as the

⁴ Jordan, Millings, & Arden (2021) **Examining Barriers and Facilitators to Electric Car Purchase and Confidence in Charging Capabilities in Sheffield and Rotherham**. Report for Sheffield City Council by the Centre for Behavioural Science and Applied Psychology, Sheffield Hallam University

contract progresses but again, this would be subject to further approvals.

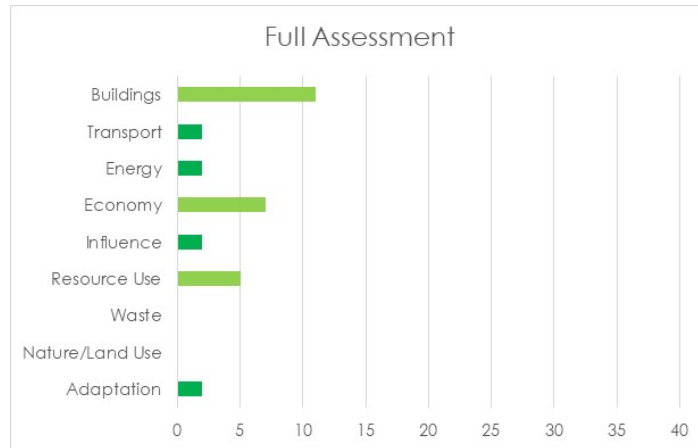
- Undertaking procurement for commercial partner(s) to deliver EV charging infrastructure through concession agreement(s), or similar, [Appendix A] is recommended. This will best place us to harness the knowledge, skills and expertise of market leaders in this sector. It will also reduce the financial risk to the Council in the longer term roll out of electric vehicle charging facilities, especially for residential charging where nationally it is accepted that the business case is more challenging. If the Council does not adopt this approach the financial and reputational risks of delivering electric vehicle infrastructure will remain with the Council. Ongoing operation, maintenance and upgrade costs may not be covered by income in the shorter term and unless additional funding was found chargers may fail and / or become redundant and have to be removed. This would be a further cost burden to the Council.

4.3 Legal Implications

- This report seeks authority for the procurement of external provider(s) for public electric vehicle charge points for residents, businesses and visitors to Sheffield. Along with delegation of authority to take such steps to achieve the aims and objectives as detailed and set out in this report including awarding of the tender(s) to the successful provider(s).
- The matters set out in this report are matters for Committee approval.
- Further approval processes will be adhered to following market procurement. Further legal considerations may be required as procurement progresses and at contract stage.
- The Transport Act 2000 places a duty on local authorities to develop and implement policies which will create a safe, efficient, integrated and economic transport system that meets the needs of persons living or working within the city. The Council's proposals in respect of electric vehicle charging will join the Sheffield City Region Transport Strategy 2018-2040 (as described in paragraph 2.3) in fulfilling that duty.
- If the recommended decisions in this report are made, further funding bids / approvals which result will be developed and taken through the Council's decision-making process as appropriate, where the specific legal implications associated with those actions will be considered before approval may be given.
- The Council must consider the engagement of key stakeholders, residents and members of the public where appropriate, and this will be addressed during the planning and delivery of those processes which alter the use of the public highway, in addition to any statutory requirement to do so relevant to the specific process concerned. A proposed approach to consultation and engagement will be developed to ensure that the Council takes appropriate measures to discharge its obligations to stakeholders.
- Legal advice will be provided at the relevant stages of the process. Legal services will be consulted to ensure that all relevant regulations are adhered to.

4.4 Climate Implications

- Considerations of climate implications and a full Climate Impact Assessment has been undertaken as appropriate specifically in relation to the recommendations of this report.
- The full Climate Impact Assessment has determined overall the project achieves a reduction in emissions.



- While there will be short term negative impacts in terms of installation and construction of the network, the project will achieve emissions reductions through decarbonisation of transport and consideration in the tender of use of renewable energy and materials used in servicing and maintenance. The project will also provide economic benefits in terms of access to electric charging for businesses and the potential for a local provider(s) to bid for the contract. The visible roll out of the network also provides great opportunities for awareness raising around low carbon travel. Mitigation measures will be achieved by including in the tender process.
- Endorsing the recommendations stated in this report will help to improve a sustainable and inclusive economy in both Sheffield and the wider Sheffield City Region.

4.5 Other Implications

- There are no direct Human Resource implications for the Council. The procurement will require resource from various council departments, Transport Planning, Legal and Commercial Services in particular.
- There are no direct Property related implications for the Council. Any proposals resulting from the procurement will be taken through their own approvals process for consideration.
- A risk register to cover things such as vandalism, changes in direction from Government, changes in technology, lack of suitable land for hubs, etc. will be developed.
- Air pollution contributes to 500 deaths a year in Sheffield, causing strokes, lung cancer and cardiovascular disease. The biggest cause of this pollution is transport, especially diesel vehicles. SCC is currently proposing the introduction of a 'category C' Clean Air Zone, which a switch to electric vehicles would support.
- Key risks to the Council continue to relate to the affordability of the current schemes related to the volatility of the price of electricity and

issues such as vandalism. This procurement proposal seeks to minimise these risks.

5 ALTERNATIVE OPTIONS CONSIDERED

5.1 More detailed consideration of the options summarised below is outlined in Appendix A to this report.

	Option	Recommendation
1	Local Authority Network Ownership	Not to progress. Key reason: financial and reputational risk to the Council. Lack of private sector finance limits scale of roll out.
2	Concession Agreement (or similar)	To progress. Key reason: ability to match private sector and government funding and maximise strategic roll out across the City. Financial risks reduced. Knowledge, skills and expertise of market leaders contribute to development of commercially sustainable network.
3	Fully Funded Charging Infrastructure only	Not to progress. Key reason: locations limited to those that are commercially sustainable and ability to support less commercial sites in the near future reduced.
4	Leased Charging Infrastructure only	Not to progress. Key reason: lack of revenue to provide fixed service payments.

5.2 An alternative to the proposed concession (or similar) agreement approach would be to develop specific projects internally and then go out to procure agreements for each of the projects individually. This is not recommended (unless there are project specific requirements that necessitate it) as it would result in a disjointed citywide provision, not bring in the knowledge, skills and expertise of the electric vehicle chargepoint operators making a commercially sustainable network harder to achieve and increase the resource required for both procurement and contract management from the Council.

6 REASONS FOR RECOMMENDATIONS

6.1 This recommendation is part of ongoing work with the Council's Commercial Services to achieve a commercially sustainable public electric vehicle charging network for residents, businesses and visitors to Sheffield. Further work will be

undertaken including soft market testing with suppliers to ensure the best approach to market is taken. The recommendation provides significant benefits, including the opportunity for:

- A reduction in financial risk to the Council in delivering electric vehicle charging infrastructure
- The ability to bring in private investment to match government funding and further expand the available network whilst reducing reliance on public funding
- The ability to access private sector skills, expertise and knowledge to develop a commercially sustainable electric vehicle charging network

6.2 If the recommendation is supported, the Council would look to procure an external supplier(s) for delivery as outlined above.

Appendix A⁵

Public Electric Vehicle Charging Network Procurement and Ownership Options

Electric vehicle charging infrastructure may be installed privately, by the local authority or in conjunction with the private sector. There are two broad approaches⁶ available to local authorities, 'own and operate' and concession type agreements⁷.

Local Authority Network Ownership

- This is the 'own and operate' model
- It is the model Sheffield has used to install its current infrastructure - supplier appointed to install and manage chargepoints, fully funded
- We are a cluster member in a South Yorkshire contract that would allow us to deliver further works in this model
- An alternative own and operate model would be for the provider to fund operation / maintenance as part of a revenue share agreement

Advantages	Disadvantages
Local authority retains ownership and collects all revenue	Requires funding from government and / or local authority
Local authority determines locations	Financial and reputational risk lies with local authority
Simpler procurement, frameworks available	Ongoing operation, maintenance and upgrade costs
Local authority determines tariffs	Changes to the market and / or technology could leave local authority with redundant infrastructure
Control over back office systems	Less incentive for operator to repair faults / difficulty with enforcement of SLAs

Concession Type Agreements

- Operational costs and risks are shared with a chargepoint operator (the concessionaire).
- The operator may fully-fund or match-fund the capital costs and take on the operating costs of the project.

⁵ Appendix B from Transport, Regeneration and Climate Committee Report, Electric Vehicle Public Charging Infrastructure Update and Short-Term Action Plan, 21st September 2022

⁶ Alternative models include 'free' charging infrastructure (details vary but likely to be highly selective where available) and 'leasing' (no upfront cost, fixed service charge, more often workplaces / fleets)

⁷ Energy Savings Trust, Procuring Electric Vehicle Chargepoints for Local Authorities [EST0038-01-Procuring-Electric-Vehicle-Charging-Guide-03.pdf \(energysavingtrust.org.uk\)](https://www.energysavingtrust.org.uk/procuring-electric-vehicle-charging-guide-03)

- There are a wide range of options with different degrees of private sector involvement and contractual terms.
- This option is in line with the governments new national EV charging infrastructure strategy (leveraging private sector investment).
- It is recommended that future charging infrastructure is developed via some form of concession agreement (or similar) to encourage private sector investment, begin to reduce reliance on government grants and minimise risk to the local authority.

Advantages	Disadvantages
Some income may be shared with the local authority	Reduced income compared with full ownership
Operator responsible (and incentivised) for maintenance of network	Procurement likely to take more resource developing tender requirements / specification
Local authority has reduced maintenance / financial risk	Less suppliers, depending on terms of the contract
Local authority may retain ownership of the equipment or underground electrical connections	Most likely to support chargepoints which are likely to be commercially viable, or of a sufficient scale that cross subsidisation possible
Operator may be responsible for updating equipment and software	Expansion of network may be dependent on utilisation, potential for this to be slower and less equitably spread [dependent on agreement]*

*There is however also potential to offer a portfolio of sites when procuring which provides a mixture of profitable and less profitable sites - this might be more acceptable for a Charge Point Operator.

Other approaches

Other approaches are available for example including Joint Venture or Land Lease only options. These have been discounted due to additional complications / lack of strategic influence.

Appendix B - Sheffield Public EV Charging Point Evidence Base

Sheffield's Current Public Provision

Electric Vehicle Charging Device Statistics: January 2023 [electric-vehicle-charging-device-statistics-january-2023.ods \(live.com\)](#) 157 devices in total (slow, fast, rapid and ultra rapid) in Sheffield

- 46 rapid devices (25kW or above)
- 111 slow and fast devices (below 25kW)

Devices are classified by their power output, and each device may offer one or more connecting points.

In 2022/23 Sheffield City Council will install an additional 2 Rapid chargers and 46 fast chargers (each with one socket).

Forecasting Electric Vehicle Chargepoint Demand

There are now a number of tools that can help Local Authorities to forecast public electric vehicle chargepoint demand. However these predictions can have a wide range. This is a result of both the inherent uncertainty that arises from assumptions around future behaviour and technologies as well as basic differences in what is considered an electric vehicle (for example just cars or also other vehicle types), the terminology (e.g. chargepoint vs device), what is considered public and the definition of chargepoint speed (what is considered 'fast' etc).

National Electric Vehicle Insight & Strategy (NEVIS) Tool

The NEVIS tool has been developed by Cenex as part of the Local Electric Vehicle Infrastructure (LEVI) scheme support programme. It includes amongst other things information on the projected transition to Battery Electric Vehicle (BEV) cars and LGVs in Sheffield and the associated carbon reductions.

Project Chargepoint Numbers Requirements for Sheffield

2030 ban (medium) scenario⁸

Year	7kW	22kW	Total fast	50kW	150kW	Total rapid
2025	626	85	711	35	10	45
2030	2457	186	2643	90	52	142
2035	3912	295	4207	143	130	273

*Numbers refer to **sockets** (assumes one chargepoint is one socket)

⁸ In terms of projected EV requirements, there are a number of scenarios but the 2030 ban (medium) is considered the most realistic (and follows government target for the entire car fleet being zero emission by 2050).

TfN Charging Infrastructure Framework

Developed by Transport for the North (TfN) to support local authority and national government partners in the planning and deployment of EV charging infrastructure. [TfN EV Charging Infrastructure Framework \(windows.net\)](#)

Project EV requirements are linked to TfNs transport scenarios and two different behavioural scenarios. It produces a range of results as illustrated below.

Year	Public Residential EVCP Requirement⁹	Destination EVCP Requirement¹⁰	Total Fast Requirement
2025	460 - 1000	300 – 1200	760 – 2200
2030	1600 - 2200	980 – 2700	2580 – 4900
2035	2300 - 3200	1400 - 4000	3700 - 7200

En-route rapid charging requirements are not provided by this model. It does however identify the top 200 ranking sites across TfN's operating area with the most potential for installation of en-route charging infrastructure.

Sites in Sheffield:

- Stocksbridge (close to Fox Valley Way / Liberty Steel)
- Sheffield City Centre (Arundel Gate)
- Chaucer
- Tinsley
- Meadowhead
- Mosborough

⁹ Charging which occurs on-street near a driver's home location, for example while parked on a local road or in a public car park. Assumed 7kW charger.

¹⁰ Destination: Charging which occurs in locations such as supermarkets, gyms, etc. Typically at a 7 kW charger where a user stays for 30 - 60 minutes.

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