



REPORT TITLE: Adoption of the ULEV (Ultra Low Emissions Vehicles) Strategy and the process for the procurement and installation of Electric Vehicle Chargers across Gloucestershire

Cabinet Date	23 rd June 2021
Cabinet Member	Cllr David Gray, Cabinet Member for Environment and Planning
Key Decision	Yes
Purpose of Report	To seek authorisation to adopt the Gloucestershire ULEV (Ultra Low Emissions Vehicles) Strategy and to conduct a competitive procurement for one or more contracts to install and operate Electric Vehicle chargers in Gloucestershire in locations that will maximise the success of the strategy.
Recommendations	<p>That the Cabinet:</p> <ol style="list-style-type: none">1. Adopts the Gloucestershire ULEV strategy setting out the council's leadership role as an investor, partner and enabler of EV infrastructure and other measures to support the switch to low carbon transport.2. Delegates authority to the Executive Director Economy, Environment and Infrastructure to:<ol style="list-style-type: none">a) conduct a competitive procurement process using the Crown Commercial Services Dynamic Purchasing System for Vehicle Charging Infrastructure Solutions (RM6213) for a 3+1+1+1 year contract to the value of up to £6 million (including third party spend) for the supply and installation of electric vehicle chargers in Gloucestershire.b) award the contract(s) to the successful bidder and call off works and services from the contract(s) up to the value of the resources available to the council and in accordance with the approach set out in the Resource Implications and Financial Implications sections of this report.c) identify and prioritise locations for the council's investment in a public EV charger network by applying the methodology from the ULEV strategy and to install new chargers in a rolling implementation plan.d) develop plans for more low emission, low carbon buses to deliver the government's Bus Back Better strategy and road map to net zero bus services.

Reasons for recommendations	<p>Significant reductions in road transport carbon emissions are required to meet national climate change targets and to reach the council's target of net zero carbon emissions in Gloucestershire by 2045.</p> <p>Gloucestershire has several air quality management areas where nitrogen oxide emissions from road transport exceed legal limits. Air pollution has serious adverse health impacts on the unborn, young, old and disabled people.</p> <p>Changing the way we travel, with more walking, cycling and use of public transport, is key to reducing emissions. However some trips will still be necessary by car. These trips, and trips by public transport, could use renewable energy which does not generate greenhouse gases. The government aims for no petrol or diesel cars and vans to be sold after 2030.</p> <p>Adopting the ULEV strategy will provide an overarching framework to guide local investment and policy decisions and help us to meet our climate change and air quality targets.</p> <p>Investing in a public network of up to 1000 electric vehicle charge points will boost confidence in, and uptake of, electric vehicles by focusing on the 30% of households who cannot charge a vehicle at home. This will help to reduce carbon and tailpipe emissions, tackle climate change and improve local air quality and health outcomes.</p>
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Resource Implications	<p>£400k of council funding is available within the EV Infrastructure budget to purchase and install EV chargers, pay for operational support and fund a project coordinator. A further £220k is subject to confirmation as part of the 2020/21 out turn.</p> <p>The Office for Zero Emission Vehicles (OZEV) offers grants for up to 75% of the capital cost of chargers and installation through its on-street residential charger scheme (ORCS). Gloucestershire is ready to submit its first bid with further bids planned later this year and in future years whilst grants remain available. This leverage is key to achieving our target of up to 1000 EV charge points. There is not a minimum contract value therefore investment will be based upon available funds and the council will only enter into contractual commitments for equipment, works and services after sufficient funding has been secured. In addition to the charging equipment there will be electrical costs payable for electricity grid connection.</p> <p>The combination of GCC funds and government grants is expected to be sufficient to fund the EV charger installation programme in years 1 and 2. An MTFS capital bid is likely to be necessary to fund EV charger installation in year 3. The size of the bid will depend on tender prices, the cost of electrical connections, the continued availability of government funding and income from users. The proposed contract provides the council with flexibility to increase or decrease expenditure each year according to its resources and ability to access to third party contributions. It also enables the council to benefit from price discounts the more chargers it procures.</p> <p>There is no separate revenue budget for managing and maintaining the EV charger network. The net revenue cost of operating EV charge points will be monitored closely as it depends upon tariffs, income from usage and charge point operator costs. The council is looking to cover its operational costs through its contract with the charge point operator and income from users.</p> <p>Should actual revenue or capital spend deviate significantly from forecasts then, to achieve our ambitions in full, it may be necessary adjust the revenue budget either by a bid for additional resources through the council's MTFS budget process or by making changes elsewhere in the council's budget to meet the cost.</p> <p>Wider government grants are available for investment in work place EV chargers and for low or zero emission buses. Funding for these is not considered in this report and will be subject to a separate business case.</p>
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Background Documents	<p>Draft Gloucestershire Ultra Low Emission Vehicle Strategy (insert links)</p> <p>Gloucestershire Local Transport Plan 2020-2041</p> <p>Gloucestershire Climate Change Strategy (December 2019)</p> <p>Gloucestershire Air Quality and Health Strategy</p> <p>Gloucestershire Local Industrial Strategy</p> <p>Road to Zero (DfT)</p>
Statutory Authority	<p>Highways Act 1980</p> <p>Road Traffic Regulation Act 1984</p> <p>Road Traffic Act 1988</p> <p>Bus Services Act 2017</p> <p>Automated and Electric Vehicles Act 2018</p>
Divisional Councillor(s)	All
Officer	<p>Name: Philip Williams</p> <p>Tel. no: 01452 328482</p> <p>Email: philip.williams@gloucestershire.gov.uk</p>
Timeline	<p>July 2021 - adoption of ULEV Strategy</p> <p>July 2021 to August 2021 – procure and award contract for EV chargers</p> <p>July 2021 to March 2024 – local engagement & EV charger installation</p> <p>Q1 2024, Q1 2025 and Q1 2026 – provision made for further contract extensions of 12 months each.</p>

Background

1. Emissions from road transport account for more than 30% of all greenhouse gas emissions and there is clear evidence that at street level these are harmful to people's health. In Gloucestershire public feedback on the recently adopted Gloucestershire Local Transport Plan highlighted growing support for transport policies and schemes to help tackle climate change and improve air quality.
2. In 2019 the county council declared a climate emergency and Cabinet agreed the Gloucestershire Climate Change Strategy and Action Plan. In the same year the Gloucestershire Air Quality and Health Strategy was adopted by the Gloucestershire Health & Wellbeing Board. Following this Atkins was commissioned to develop an Ultra Low Emission Vehicle strategy. This provides a vision and strategic framework to guide work on decarbonising transport and achieve our target of net zero carbon emissions in Gloucestershire by 2045.
3. Over the past year the Covid-19 pandemic has had a major impact on how we travel: traffic levels dropped by almost 70% in the first lockdown, working from home became the norm and many people have taken the opportunity of quieter streets to walk more, cycle more or even use an e-scooter as part of local trials supported by the council. Despite the changes EV registrations have proven to be remarkably resilient and the EV market share has tripled from 3.1% in 2019 and over 9% in 2020.
4. At national level the government declared a Ten Point Plan for a Green Industrial Revolution, building back better, supporting green jobs and accelerating our path to net zero. This includes bringing forward the date for phasing out the sale of new petrol and diesel vehicles from 2035 to 2030. This is forecast to increase the number of ULEV's on our roads in 2030 by 20% compared with the earlier target of 2035. To enable this growth the government has announced £2.5bn of funding comprising £1.3bn for EV charge points, £582m for vehicle grants and over £0.5bn for industry (EV production and supply chains including gigafactories).
5. Locally, the government's commitment to EV's was made clear last autumn when the Planning Inspectorate referenced this in overturning an earlier planning decision and local objections to give the green light to a 96 vehicle EV charging station off the A429 Fosseway near Lower Slaughter.

Ultra Low Emission Vehicles (ULEV) Strategy

6. The ULEV strategy recommended for approval highlights the significant potential to switch to electric vehicles in Gloucestershire; 72% of commuter journeys are made within the county and 31-54% start and end within the same district. The strategy recommends an approach for prioritising the types and locations of public EV charge points to maximise the uptake of EV's and ensure that the council secures the greatest economic and social value from its investment. Lastly, it draws upon UK and international experience to identify a set of actions and funding sources where the council can:

- i. take the **Lead** with the capability of controlling all elements; (e.g. procuring EV charge points in residential areas)
 - ii. **Enable** an action to be carried out either by itself or others; (e.g. providing charge points as part of new development including housing)
 - iii. **Explore** new innovations, testing new approaches and ideas; (e.g. the current e-scooter trial in Cheltenham and Gloucester)
 - iv. **Partner** with other organisations to deliver actions, where we don't control some elements (bus operators seeking government grants for ULEV buses and associated charging infrastructure)
7. Whilst Atkins has been developing the ULEV strategy council officers have also conducted extensive market engagement with EV charge point operators, consulted elected members on the council's Environment Scrutiny Committee, networked with officers from authorities across the South West and had extensive dialogue with Western Power Distribution. This has helped us to better understand the challenges, which include funding (revenue and capital projections), technological maturity and industry standards, electrical grid constraints (connection costs), site prioritisation (gaps and equity factors) and contracting mechanisms (risk).

Electric Vehicle Charge Points

8. The culmination of this significant piece of work is to invest in a network public EV chargers with back office operational support and to recruit a project manager to coordinate the roll out and manage the contract. The installation of EV chargers, most of which will be fast chargers with two charge points, will be carried out in phases and over 3 to 6 years depending on available funds. We will prioritise residential areas with high levels of on-street parking as research shows that high uptake of EV's will only be achieved if all residents have access to overnight charging for their vehicle. Market research indicates that the greatest potential for growth is likely to be in urban areas initially. The high up front price of new EV's is a barrier to growth however lower income groups are starting to benefit as more ULEV's become available on the second hand market.
9. The On Street Residential Charge point Scheme (ORCS) provided by the government's Office for Zero Emission Vehicles (OZEV) is critical to enabling us to realise our ambitions. By providing up to 75% grant funding it makes our money go much further. The continuation of this scheme is not guaranteed beyond 2021/22 however it is worth noting that it has underspent in recent years and OZEV are encouraging local authorities to submit bids. Negotiations with OZEV are at an advanced stage and we anticipate submitting our bid for the first phase of grant funding, for 40 charge points, as soon as we have appointed an EV charge point operator and tender prices are confirmed. Further bids will follow later this year and in future years.
10. A key part of our investment will be the installation of 50 chargers (100 charge points) in a new 1000 space Arle Court Transport Hub off the A40 in

Cheltenham. These will serve commuters and shoppers parking for longer durations and will be funded from the M5 junction 10 improvement scheme. Plans are being developed for the chargers to use renewable energy from solar photo voltaic panels on the top deck of the car park.

11. Shortly after this decision is taken we will conduct a competitive procurement for the EV chargers and back office support using the Crown Commercial Services' dynamic purchasing system for EV infrastructure. In our *enabling* role we will be using a form of procurement that includes a 'clustering' arrangement to allow others, such as district and parish councils and public sector bodies in Gloucestershire, to access the contract(s) so that they can independently install chargers in their own car parks.
12. Civils and electrical connection costs are expected to constitute around 35-40% of capital expenditure. However as many sites have yet to be identified it is important that the council is able to secure competitive prices nearer the time. Therefore we will ask charge point operators to price for this work but will reserve the right to use the electricity distribution network operator (DNO) or an approved third party contractor for this. This is one reason why there is a significant difference between the minimum and maximum potential contract values.
13. To encourage demand tariffs (a connection fee plus the price per kWh for energy) need to be kept to a reasonable level as determined by benchmarking with similar types of chargers in other areas. Tariffs will need to change over time as electricity prices vary so officers are exploring the use of a pricing mechanism in the contract to ensure that tariffs remain fair. For a fast charger a user may be expected to pay a connection cost of 50p and a tariff of 25-30p per kWh. The actual figures will depend on the outcome of the tender process.

Other initiatives

14. Like many local authorities the council is actively reviewing the types of vehicles it uses in its own fleet. A review currently underway will help us develop and fund a green fleet replacement programme. In recent years a staff pool car scheme has been piloting the use of electric vehicles and highways and parking services have started using EVs to reduce our carbon footprint.
15. Last autumn the council, partnering with Zwings, launched an e-scooter trial in Gloucester and Cheltenham. This is one of several local trials being encouraged by the government. Despite lockdown restrictions e-scooter use has exceeded expectations providing low carbon, socially distanced transport whilst bus service capacity is limited. The trial is expected to continue for a year, with a review by the DfT expected in October 2021.
16. Covid has had a significant and damaging impact on public transport use. In its recently published Bus Back Better strategy the government is requiring councils to develop Bus Service Improvement Plans setting out bus priority and other measures to improve service reliability and increase bus use. It is also offering to

support bus operators with purchasing 4000 ULEV buses. We will explore ways to *partner* with bus operators in bidding for ULEV buses to use on our local bus network. Work has also started on developing our Bus Service Improvement Plan for submission to government later this year.

17. In many cities taxis are the first experience that residents and visitors have of using an electric vehicle. With good branding taxis can also be a highly visible symbol of the local commitment to tackling air pollution and climate change. We will continue dialogue with district council taxi licensing authorities to identify opportunities to accelerate the adoption of ULEV's by Hackney Carriage and Private Hire Vehicle operators in the county.
18. As local highway authority the council is a statutory consultee on planning applications considered by the six district local planning authorities in Gloucestershire. We will continue to use this role to influence the development of local development planning policies which encourage developers to invest in EV charging infrastructure at home, at work, en-route and destination charging infrastructure, e.g. in town centres and at supermarkets.

Options

19. As part of our market engagement research officers have explored two different models of contracting for EV chargers: (1) fully funded by the council and (2) privately funded concession models.
20. Concession contracts can be of interest to private charge point operators however in the current market few on-street locations in the county are commercially viable and the council would have minimal say in choosing locations. By funding the capital cost of the EV charger infrastructure itself the council is in a stronger position to decide the location of chargers, recover its operating costs from income and then use this income to cross subsidise sites that aren't performing as well as expected.
21. The main benefits of approving the ULEV strategy and investing in up to 1000 EV charge points are set out on the front page in the section 'Reasons for the recommendations' and centre on delivering climate change and air quality policy objectives.
22. Doing nothing is an option however this would undermine local and national policy objectives and make it very difficult to meet targets for reducing greenhouse gas emissions and improving local air quality. Private EV charging infrastructure would continue to serve people in locations such as supermarkets however the 30% of households which lack off road parking (and charging) would be particularly disadvantaged and the council would likely face reputational damage.

Risks

23. Our EV charger programme is reliant upon OZEV grants to achieve its ambition of 1000 charge points. If these are scaled back it will affect the number of charge

points that we can install however the council will have flexibility in its contract(s) to vary this number. To mitigate the risk of not receiving OZEV grants in the medium/long term we aim to front load the programme and install EV chargers in the first three years. It is worth noting that the government's decision to bring forward its target date for all new cars to be ULEV, from 2035 to 2030, gives it a strong reason to continue incentivising councils to install charging infrastructure over the next few years.

24. Changes in technology and demand are likely to affect the range of EV charging products on the market and their cost. The council's procurement strategy provides flexibility after three years to go back to the market and procure a new product/supplier or to award up to three further 12 month extensions with our incumbent supplier. In 3-6 years time we expect to have considerable data on actual demand, which is likely to be of more interest to commercial investors who may wish to operate chargers on a concession basis.
25. We aim to recover our revenue costs using income from charging. This is based upon assumed levels of demand and the margin between the electricity purchase and supply cost. Actual use will be closely monitored to check that this strategy is on track. By purchasing EV chargers the council is in the strongest position to benefit from income however if decisions are taken to install chargers in areas of low demand this will put pressure on revenue budgets and require an MTF5 budget bid to be submitted in future years.
26. Initially the council's EV charger programme will focus more on urban areas, as EV demand is shown to be higher here. Given that car ownership and dependency are higher in rural areas the impacts of this approach will be closely monitored during the course of the project in case it needs to be adjusted.

Financial implications

27. Subject to the recommendations of this paper being approved GCC have £620,000 of funds available and will be submitting bids for alternative funding over the next three years. We have set up a financial model to record the cost of procurement, installation and operation as well as tariffs, levels of user demand and future revenue income to be able us to work out the number of chargers that can be delivered from the available funds.
28. Completion of the tender process will provide firmer prices for EV charging equipment however throughout the site identification and implementation process care will need to be taken to keep control of costs as electrical connection costs quickly escalate when sites can only be progressed subject to grid reinforcement or a substation upgrade; for this reason electrical connection costs have been capped to a maximum of £2500 per charger.

Climate change implications

29. Significant reductions in road transport carbon emissions are required to meet national climate change targets and to reach the council's target of net zero carbon emissions in Gloucestershire by 2045.
30. Road transport accounts for around 30% of emissions of carbon dioxide and investment in large scale EV charging infrastructure will complement wider measures to encourage people to switch from fossil fuel (internal combustion engine/ICE) vehicles to ULEV's. Detailed modelling has not been carried out by the council although further work is due to be commissioned separately this year to inform the council with setting stepped targets and milestones for reducing carbon emissions over the next 24 years.

Equality implications

31. The main issue identified that has the potential to negatively impact on people with protected characteristics is the design of EV chargers and where they are placed on the highway. In both cases we recognise the importance of chargers that can be used by people with disabilities and ensuring that the location of chargers does not cause an obstruction to pedestrians. In some locations this may require chargers to be placed in the carriageway on islands between parking bays.
32. Has an Equalities Impact Assessment (EIA) been completed? Yes / No
33. Cabinet Members should read and consider the Equalities Impact Assessment in order to satisfy themselves as decision makers that due regard has been given.

Data Protection Impact Assessment (DPIA) implications

34. EV charge point customers will pay the EV charge point operator directly rather than the council. Advice has been taken from the Information Management Services team and the council will be the data owner with the EV charge point operator being the data processor. Data will be externally hosted by the operator and the council's normal requirements with regard to GDPR and ICT security will apply.

Social value implications

35. Implementation of the recommendations will support the council with delivering against its climate change commitments and improving local air quality standards, as explained earlier in the report.

Consultation feedback

36. Market engagement in summer 2020 with several providers of EV chargers played an important part in informing the development of the approach outlined in this paper (e.g. management of risks). It also provided indicative prices to assist with forecasting the costs of the installation programme.

37. Feedback from the Go Ultra Low West authorities was that they decided to adopt a similar procurement model in order to have more control over the location of charge points.
38. Western Power distribution has provided detailed feedback on the viability of phase one sites and the likely costs of electrical grid connections, to help with decision making and to enable us to test the assumptions in our financial model.
39. Detailed discussions with the Energy Savings Trust, which administers the ORCS scheme for the DfT, have proved helpful in challenging site locations and suggesting alternatives. This will help with the initial phase one sites and with identifying future sites for chargers.

Officer recommendations

40. To agree the recommendations set out on the front page of the report.

Performance Management/Follow-up

41. A full suite of contract KPI's have been developed to cover installation, maintenance and operational service standards for EV charge points. Crown Commercial Service terms and conditions apply.