

Electric Vehicle and Infrastructure Strategy

2021 - 2030



March 2021

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1. Introduction:

Councils have a role in supporting the development of electric vehicle charging and ensuring that everyone can switch to electric vehicles to support the Government's Road to Zero Strategy¹ and ambition of at least half of new cars to be ultra low emission by 2030. This strategy sets out how Canterbury City Council will increase the uptake of Ultra Low Emission Vehicles (ULEVs) on roads across Canterbury District. The move to ULEVs is necessary to meet our own commitment to be net zero carbon by 2030 within our draft Climate Change Action Plan² and to meet air quality objectives set out in the Air Quality Action Plan³. The Council's draft Corporate Plan⁴ also confirms the Council's commitment to the environment and its determination to be carbon neutral whilst supporting the district's economy to recover and grow. Canterbury City Council will explore how we can support local businesses that positively contribute to the uptake of ULEVs, in line with the new Corporate Plan. We recognise that rapidly changing technology will require us to be innovative and agile, we will therefore explore all opportunities to enhance delivery of the strategy.

Private home (or workplace) charging is expected to be preferred for many car owners across the District, but there will also be an important role for public charging infrastructure, both because of car owning homes without off-street parking, a rising gig economy, and high-mileage vehicles such as taxis and private hire that will require charging throughout the course of a day. This strategy will support the Council's new Taxi Licensing Policy⁵ which requires all taxis and private hire vehicles to be ultra low emission ULEV by 1st August 2025 and for the entire fleet to be all electric by 1 August 2030, by providing sufficient charging infrastructure for drivers to be confident to invest in an all electric vehicle before 2030.

Our overall transport vision for Canterbury District remains one based on sustainable transport. We recognise the many benefits of sustainable transport, both to individuals, places and the environment and want to reduce car use overall in favour of public transport and active travel.

However, we recognise that for certain activities and individuals, cars and vans remain an appropriate mode of transport. Moving these vehicles from petrol and diesel to ULEVs is critical, to reduce the impact of those journeys, and help us achieve our climate change and air quality ambitions. Our vision for the District is that when residents travel by car and van, they choose ultra-low emission vehicles and travel in a carbon neutral way.

This strategy has been produced by the Transportation and Environmental Protection Teams and links with the sustainable transport priority action within the Kent Energy and Low Emission Strategy⁶. It forms one part of the overall Transport Strategy for the District and should be considered alongside and read in conjunction with other strategies such as the Walking and Cycling Strategy.

2. Air Quality and Climate Change:

One of our main concerns is to safeguard and improve air quality across the District. There are two Air Quality Management Areas (AQMAs) in Canterbury District; one in the centre of Herne Village and one along the Canterbury ring road. These AQMAs are in locations where nitrogen dioxide levels exceed the national maximum threshold. The main cause of this pollution is vehicle emissions. To tackle air pollution in the AQMAs, we are implementing specific interventions within the Air Quality Action Plan but additionally there is need for a broader initiative to make the vehicles travelling on our roads more environmentally friendly. Therefore, as a council with a strong sustainable transport focus, we have recognised the need to ensure ULEV uptake can be accelerated.

We also have to be ready for changes in the UK's vehicle market. We know that by 2030 the sale of petrol and diesel vehicles will be banned. We can already see a clear trend showing increasing numbers of ULEVs on the road. We need to have a good network of electric vehicle (EV) charging points to serve both residents and visitors, and to encourage the move towards cleaner vehicles.

The Climate Emergency Declaration commits us to do what we can to help reduce the District's carbon dioxide emissions to tackle climate change. The UK is on a path of decarbonisation and we have a part to play in this. The lifetime carbon footprint of electric vehicles is smaller (as much as three times lower⁷) than conventional fossil fuel vehicles, and we are keen to incentivise the switch to low carbon transport.

3. Trends in EV Demand:

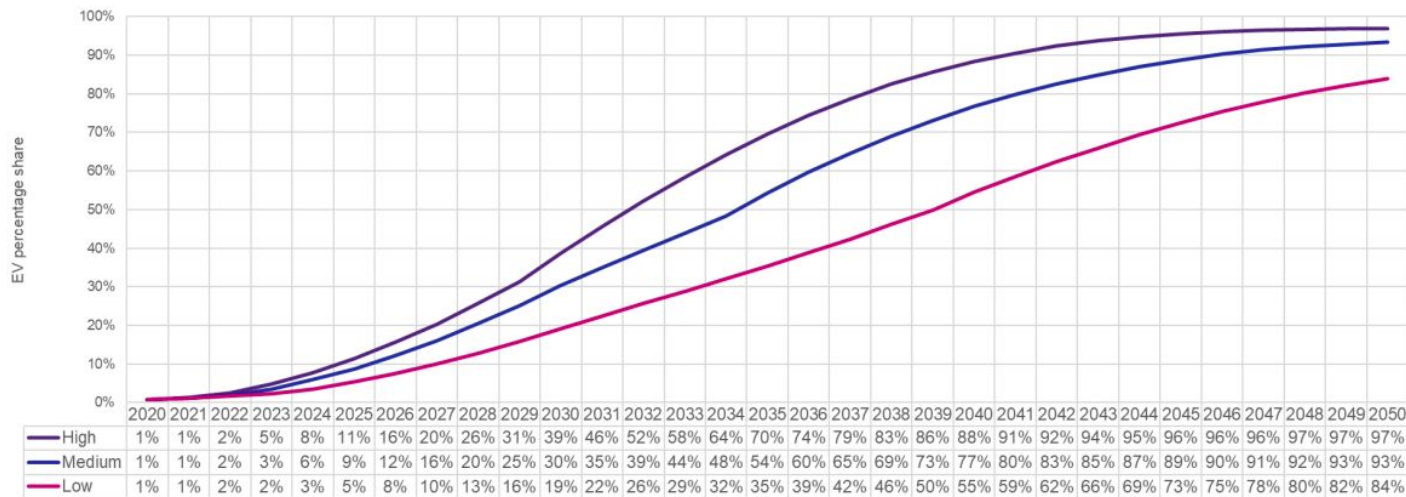
The figure below shows the percentage share of EVs in the overall vehicle fleet following the likely trends in demand based on low, medium and high future energy scenarios. In order to encourage and support uptake and increased usage of EVs, a comprehensive network of public charging needs to be established.

Figure 1: Predicted percentage of electric vehicles in the Canterbury District

Extract from UKPN Distribution Future Energy Scenarios



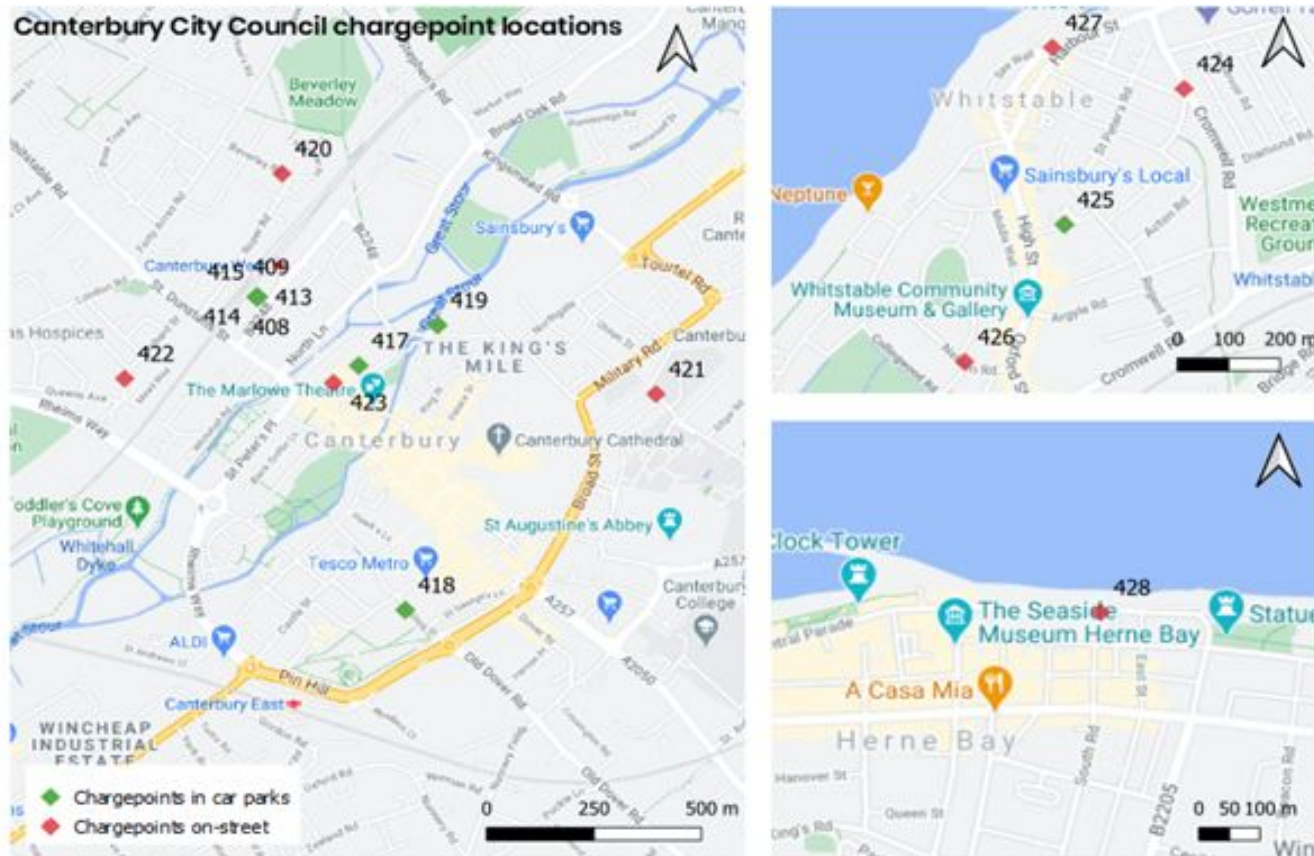
EVs as a percentage share in Canterbury - UKPN, 2019



4. Current Public Infrastructure:

The current provision of public charging infrastructure in Canterbury is shown in figure 2 below and a list of the types of charging points and current charging points are provided in Appendix A and B. In January 2021, there were 38 publicly available charging points in Canterbury District, equating to one charging point for every 12 EVs. This is close to the UK average of one charging socket for every 9.6 EVs.

Figure 2: Charge point locations in the Canterbury District

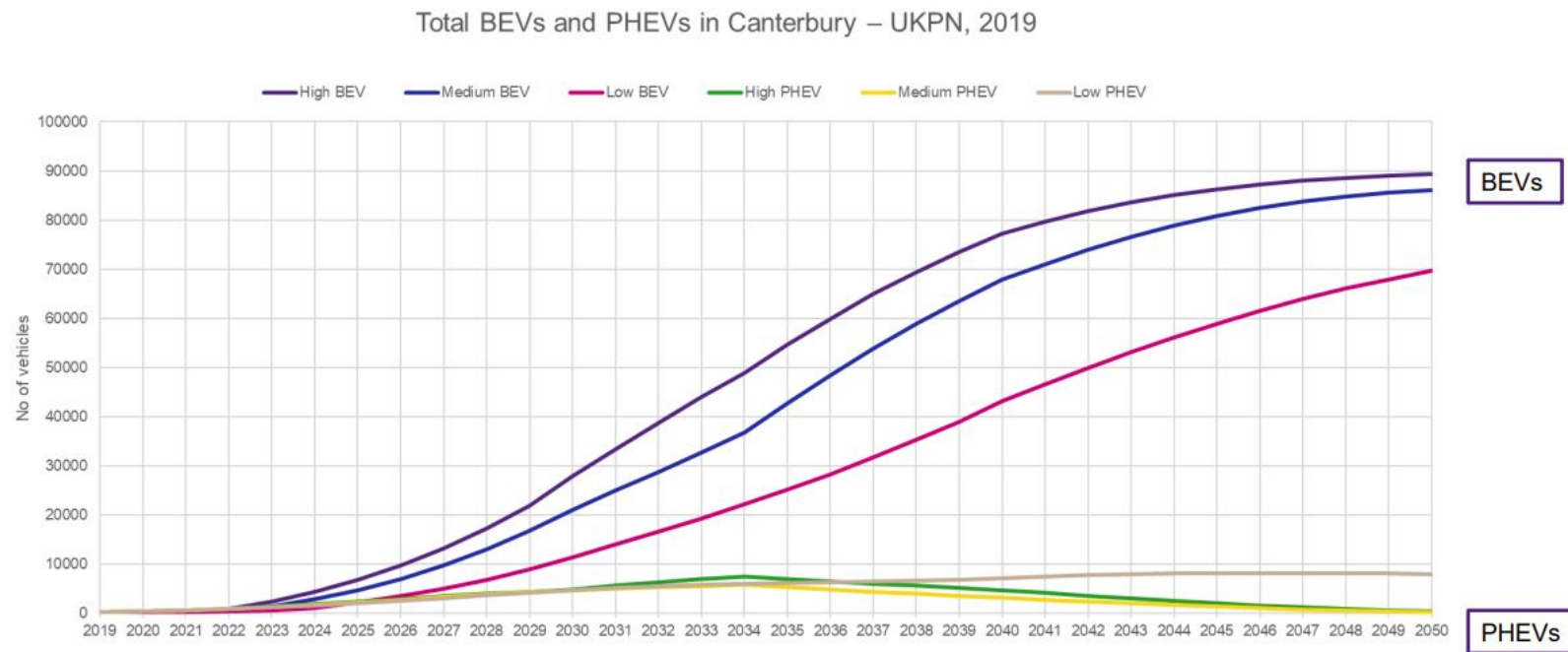


For Canterbury to achieve EV uptake in-line with the Government's Road to Zero Strategy¹ and ambition of at least half of new cars to be ultra low emission by 2030, penetration of EVs needs to follow the high range presented in figure 3 below, this equates to approximately 7,000 battery electric vehicles (BEVs) and 2,000 Plug-in Hybrid Electric Vehicles (PHEVs) in Canterbury in 2025.

Figure 3: Predicted number of electric vehicles in the Canterbury District



Extract from UKPN Distribution Future Energy Scenarios



5. Future Public Infrastructure:

This strategy is underpinned by evidence and is supported by extensive research and advice from the Energy Savings Trust:

- The majority of electric vehicles are currently and are expected to continue to be charged overnight at home or at their operations base. This is the most economical and convenient charging method and is expected to be the preferred method for charging vehicles through to 2030.
- In-service top-up charging is projected to be at the fastest type of rapid chargers (which give 80% charge in 30 minutes) being installed on taxi ranks and in commercial locations including service stations and supermarkets.
- The work to support and enable on-street charge points will be informed by specific engagement and research surveys to provide evidence of the charging requirements of taxi and private hire vehicle operators and residents.
- As the electric vehicle range, charge speeds and methods are evolving rapidly, the council's work in this area will need to be pro-active and agile.

The heat map in figure 4 shows where residents do not have off street parking, the areas where there is the lowest amount of off street parking are within the centre of Canterbury and Whitstable. The highest number of resident requests for charge points are to the south of Canterbury City Centre where there is currently no on-street or off-street provision nearby.

Alongside the requirement that any new taxi or PHV being presented for licence would need to be ULEV from August 2025, the Council committed to putting in 6 rapid charge points dedicated to taxis and PHVs by the end of 2021, using funding from the Office for Low Emission Vehicles (OLEV). This will form the core of a strategic network of rapid charge points. The strategy has an objective of delivering 18 rapid charge points by 2025 for taxis and PHVs. This is a provisional estimate based on research and will be revised once the results of the taxi survey are analysed.

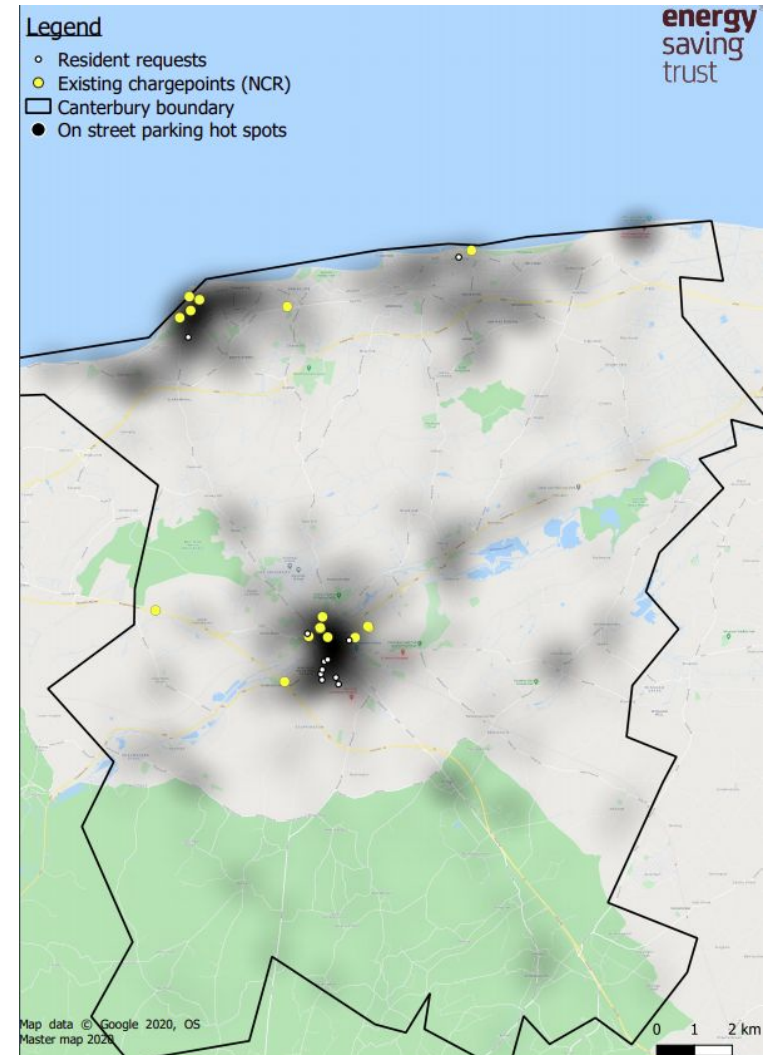


Figure 4: On street parking heat map

The following future projections of the number of charge points required highlight the need for a significant scale of charge point installation activity. A range of ratios have been used to provide an indication of the charging infrastructure requirements in the Canterbury District to 2025. Scenarios covered ratios of 1 public charger to every 10, 15 and 25 EVs. For the “high uptake” scenario mentioned in point 4 above, this provides a range of between 280 public chargers (for 1:25) and 700 public chargers (for 1:10). This public charging infrastructure strategy covers all types of public charging and caters to different user groups that would be expected to make use of it. The recommendation is to employ a phased deployment approach to public charging infrastructure across the District that mirrors demand.

The charge point installation scenarios shown in table 1 below refer to the following charge point to EV ratios; ‘Low’ represents the minimum amount of charging infrastructure that should be installed to support an expected 7,000 EVs in Canterbury District by 2025; ‘Medium’ accounts for an adequate supply of infrastructure to support 7,000 EVs in Canterbury District by 2025 and ‘High’ represents the ratio of charge points to EVs that would be expected to put the Canterbury District infrastructure provision on track with the UK average.

Table 1: Charge point installations scenarios for 2025

Charger Type	Low Scenario	Medium Scenario	High Scenario
Workplace & Commercial 7-11kW	125	210	435
Public Car Parks 22kW	56 (28 dual socket)	94 (47 dual socket)	196 (98 dual socket)
On-Street Residential 7-11kW	100	112	136
Taxis 50kW	8	12	18
Total	291	431	789

This strategy will aim to deliver the ‘High Scenario’ number of charge points. This will help ensure that the EV charging infrastructure is available for potential EV adopters, helping to alleviate concerns over availability and providing additional confidence to maximise use of EVs in Canterbury District. It will also ensure that Canterbury continues to be in line with the overall UK ratio of 9.6 EVs per charge point and represents the most significant opportunity to achieve the targets outlined in the Government’s ‘Road to Zero’ strategy. This strategy will be periodically reviewed using evidence from annual consultations to ensure that the figures in these scenarios remain relevant. We also recognise that we will need to be flexible if demand starts to increase to ensure that we keep up with demand.

Appendix C lists the charging points planned for installation in 2021 and Appendix D shows a summary of the main operating models.

6. Electric Vehicle and Infrastructure Strategy

Aims:

- Increase provision of EV charging infrastructure across Canterbury District; and
- Increase the proportion of vehicles that are ultra-low emission on roads across the Canterbury District;

Objectives:

- To provide charging infrastructure for EVs in order to incentivise the use of ULEVs over internal combustion engine powered equivalents.
- To make EV infrastructure across Canterbury District sustainable for the future.
- To support the transition of commercial and public transport vehicles to ULEVs, in particular taxis and private hire vehicles (PHVs).
- To increase the number of EVs in the Council's own fleet.

Action 1: Establish a network of public EV charge points

1. Develop a public charging infrastructure network
 - To engage with the electricity distribution network operators (DNOs) to help facilitate infrastructure installation.
 - To increase the network of public charge points in authority-owned car parks, leisure centres, taxi ranks and other facilities.
 - To work with businesses, commercial areas, car clubs and transport hubs such as rail stations to set up charging infrastructure.
2. Proactively plan for on-street residential charging
 - To undertake analysis of current authority-wide car ownership patterns, in combination with on-street parking pressures to locate streets that might benefit from charging points.
 - To set up a scheme for residents to request a charge point in their street and clearly outline plans for residential charging to residents to manage expectations.
 - To prioritise requests from taxi and PHV drivers for a charge point on-street near their home for those with no off-street parking. Proof of electric vehicle ownership will be required.
3. Adopt planning guidance for new housing and businesses
 - Require active and passive charge point provision for all developments and electric car club provision as part of planning obligations for new large scale developments.

Action 2: Local incentives

4. Provide discounted parking for EVs as a stimulus to early adoption. (This will not be an ongoing subsidy and we will set a date for this to end).

Action 3: Implement EV technology

5. To robustly consider EV as a preference for all City Council fleet replacement, new vehicle purchases and specification in contracts where appropriate vehicles are available and meet our operational needs.
6. Install charge points at key workplaces for Council staff.
7. Work with public transport and car club providers to increase the proportion of ULEVs in their fleet.

Action 4: Raise awareness

8. Raise awareness with residents, visitors, key organisations, businesses and user groups such as taxi and PHV drivers.
9. Promote funding opportunities to other organisations, such as businesses.

Action 5: Funding

10. To identify sources of funding to develop and install EV charging infrastructure and where appropriate pursue that funding.

The summary action table on the following page sets out how these actions are being met and how others will be met.

7. Electric Vehicle and Infrastructure Strategy Delivery Plan

The delivery plan sets out actions for the near term to ensure that the availability of publicly accessible charging infrastructure will no longer be a barrier to, and in fact will help accelerate the switch to EVs towards 2025.

Initiative	Brief Description	Lead Organisation & partners	Lead Team	Funding Bodies	Status (Underway, Funded, In Development, Required)
Council charge point strategy	Deliver fast destination charging for City Council Car parks and other property assets at key workplaces and destinations. Engage with DNOs to develop a delivery programme for charge points across the District using a renewable energy source. Investigate development of rapid charging hubs at strategic locations using solar canopies and storage	CCC Commercial Partner	Transport	OLEV Defra CCC	Underway Target for further installations 2021/22
Public/Private charge points	Work with public bodies, businesses, commercial areas and transport hubs such as rail stations to set up charging infrastructure including shared business charging infrastructure	CCC	Transport Environmental Protection	Private via workplace grant	Required
Parish charge point project	Publicly accessible fast chargers for Parish Councils and village centres	KCC	KCC Highways	OLEV / Parish Councils	In Development
Rapid charge points for electric taxis & PHVs	Conduct driver surveys to understand future demand for charge points and identify suitable locations. Continued installation of rapid charge points to support the transition to EV Taxis and PHVs as required by the Licensing Policy	KCC CCC	KCC Highways	OLEV	Underway 3 dual charge points to be installed in 2021
On street charging solutions for residents without parking	Conduct resident surveys to identify suitable locations for on street charge points. Tackling the need for those living in flats and terraced housing	CCC	Transport	OLEV CCC	In Development
EV planning policy & guidance	Measures to ensure delivery of suitable EV infrastructure (active & passive) in new developments and to provide funding for on-street charging sites for electric car clubs	CCC	Planning Environmental Protection	CCC	Underway

Initiative	Brief Description	Lead Organisation & partners	Lead Team	Funding Bodies	Status (Underway, Funded, In Development, Required)
Incentives for EV drivers	Provide 20% discount for electric vehicles that are registered for an account at ANPR car parks	CCC	Transport	CCC	Underway
Fleet review	Full review of the costs, use and operation of the City Council fleet to inform future fleet strategy including use of EVs and charging infrastructure	CCC & EST	Environmental Protection	CCC	Complete. Phased replacement underway
Electrification of public transport	Work with public transport providers to ensure fleets are zero emission by 2030	KCC Bus Operators	Transport Environmental Protection	KCC Bus Operators	Required
Electrification of car club vehicles	Work with the car club operator to expand its network of EV provision with a view to making all vehicles electric by 2030	CCC	Transport	CCC	Required
Signposting residents and businesses to relevant grant funding and information	Funding for domestic and workplace charge points, vehicle subsidies and commercial grants. Information on charge point locations and how to suggest/request an on-street charge point including plans for residential charging on CCC's website	CCC	Communications	N/A	Underway
Identifying sources of funding	Identifying sources of funding and commercial partnerships for EV Infrastructure	CCC	Transport	As identified	Underway

8. References:

1. The Road to Zero Next steps towards cleaner road transport and delivering our Industrial Strategy
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/road-to-zero.pdf
2. Canterbury City Council's Draft Climate Change Action Plan 2021 - 2030
<https://democracy.canterbury.gov.uk/documents/s110788/Appendix%201%20Climate%20Change%20Action%20Plan.pdf>
3. Canterbury City Council's Air Quality Action Plan 2018 - 2023
https://www.canterbury.gov.uk/downloads/download/254/air_quality_action_plan_document
4. Canterbury City Council's Draft Corporate Plan 2021 - 2024
<https://democracy.canterbury.gov.uk/documents/s110792/Appendix%201%20Draft%20Corporate%20Plan%202021-24.pdf>
5. Canterbury City Council's Taxi Licensing Policy 2021
6. Kent Energy and Low Emission Strategy
<https://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/environmental-policies/kent-and-medway-energy-and-low-emissions-strategy>
7. Carbon Brief, Factcheck: How electric vehicles help to tackle climate change
<https://www.carbonbrief.org/factcheck-how-electric-vehicles-help-to-tackle-climate-change>

Appendix A: Types of Charging Point

There are three main types of EV charging – rapid, fast, and slow. These represent the power outputs, and therefore charging speeds, available to charge an EV.

Charge point type and power output	Likely installation location	Specific connection requirements	Network considerations	Likely charge time for a 35kWh charge
Slow 3kW	Domestic	None - connects via household socket	None	12 hours
Slow 3.7kW	Domestic, street or workplace	Dedicated household circuit or on street equivalent	In some cases limited local reinforcement is required	9 hours
Fast 7kW	Domestic, street or workplace	Dedicated household circuit or on street equivalent	Likely upgrade to service cable and local mains	5 hours
Fast 22kW	Street or public location. Car parks.	Three phase dedicated supply point	Three phase connection and likely local mains upgrade	1.5 hours
Rapid 50kW	Public location close to main routes. Service Stations	Three phase dedicated supply point	Three phase connection and likely local mains upgrade	30 minutes
Ultra Rapid 100kW or more	Public location close to main routes. Petrol Stations	Supply point from dedicated transformer	In most cases a new transformer will be established	15 minutes

Appendix B: Current EV Charging Point List

Charging Point ID	Location	No. of charge points	Power (kW)	TRO Description
407	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
408	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
409	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
410	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
411	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
412	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
413	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
414	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
415	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
416	Station Road West Multi Storey Car Park, Canterbury	1	22	Parking charges apply, no max stay
417	Pound Lane Car Park, Canterbury	2	22	Parking charges apply, no max stay
418	Watling Street Car Park, Canterbury	2	22	Parking charges apply, no max stay

Charging Point ID	Location	No. of charge points	Power (kW)	TRO Description
419	St Radigunds Car Park, Canterbury	2	22	Parking charges apply, no max stay
420	Beverley Road, Canterbury	2	7.5	4 hour max except permit holders
421	North Holmes Road, Canterbury	2	7.5	2 hour max, parking charges apply, except permit holders
422	Queens Avenue, Canterbury	2	7.5	9am – 6pm, maximum stay 4 hours
423	Westgate Hall Road, Canterbury	2	11	Permit holders only, at any time
424	Cromwell Road, Whitstable	2	7.5	9am – 6pm, maximum stay 4 hours
425	Gladstone Road Car Park, Whitstable	2	7.5	10am-9pm, maximum stay 4 hours, parking charges apply
426	Nelson Road, Whitstable	2	7.5	9am – 6pm, maximum stay 4 hours
427	Sea Street, Herne Bay	2	11	9am – 6pm, maximum stay 4 hours
428	Central Parade, Herne Bay	2	7.5	8.30 - 18.00 Max stay 4 hours, parking charges apply, except permit holders
429	Sturry Park & Ride, Sturry, Canterbury	2	3	Parking charges apply, no max stay
430	Wincheap Park & Ride, Canterbury	2	3	Parking charges apply, no max stay

Appendix C: Future EV Charging Point List

Location	No. of charge points	Power (kW)	Funding Status
Canterbury Lane Taxi Rank, Canterbury	2	50	OLEV funding via KCC
St Georges Lane Taxi Rank, Canterbury	2	50	OLEV funding via KCC
Maynard Road Car Park, Canterbury (For use by Private Hire Vehicles)	2	50	OLEV funding via KCC
Station Road West Multi Storey Car Park, Canterbury	10	22	Cabling installed awaiting connection
Sturry Road Park & Ride, Sturry, Canterbury	2	22	AQ Grant
New Dover Road Park & Ride, Canterbury	2	22	AQ Grant
Wincheap Park & Ride, Canterbury	1	22	AQ Grant
Holmans Meadow Car Park, Canterbury	5	22	AQ Grant
Castle Row Car Park, Canterbury	1	22	AQ Grant
Neptune Car Park Herne Bay	1	22	AQ Grant
William Street Car Park, Herne Bay	2	22	AQ Grant
Gorrell Tank Car Park, Whitstable	2	22	AQ Grant
School Lane Car Park, Herne Village	1	22	AQ Grant
Longport Car Park, Longport, Canterbury	2	22	Unknown
Reculver Car Park, Reculver	2	22	Unknown

Appendix D: EV Operating Models

Model A - Own and Operate

Under this arrangement, the charging infrastructure would be owned by the council, receiving all revenue from the chargers, but also covering all costs. Typically, a fee is paid to a supplier to operate and maintain the network, either as a fixed cost service or a small charge per customer transaction. The council is, however, liable for all risks. It is responsible for all ongoing maintenance and operational costs as well as any future upgrades to the network, and it carries the risk of receiving lower than anticipated revenue generation. Electric vehicle charging technologies are rapidly evolving and an own and operate model presents a high risk that the equipment invested in can quickly become outdated or even obsolete.

Advantages	Disadvantages
Council retains full ownership and collects all revenues	Capital commitment may be extensive and govt. funding limited
The council can choose locations, regardless of commercial viability, to ensure equity of access for residents	The council is responsible for all ongoing operation, maintenance and upgrade costs
Charge points in prime locations can be an ongoing revenue stream for the authority	Equipment may become redundant as charging market develops and local authority would have to replace or remove units
Profitable sites can help to subsidise those that are less-utilised but provide an important service to local residents	The council carries the risks of unexpected costs and the reputational damage if the network is unreliable
Charge points at Council-owned shopping or leisure sites can help to increase footfall	The council carries the risk of lower revenue generation than anticipated

Model B - Leasing

A leasing model is similar to an own and operate model, however some risks can be transferred as the council leases the charger equipment and back office software for an ongoing hire fee from a chargepoint operator, typically for a minimum period of 5 years. This removes or significantly lowers the upfront capital costs required and in most cases reduces the maintenance liabilities of the chargers. However, non-warranty repairs following accidental damage and vandalism are often chargeable to the authority and all equipment must be returned at the end of lease in a reasonable condition.

The ongoing costs are higher, but they are fixed (excluding damage repairs) which provides budget certainty, however these costs are applicable regardless of network usage and if charge points aren't utilised this can become a heavily subsidised provision.

Advantages	Disadvantages
The council retains all revenues	The council carries the risk of lower revenue generation than anticipated
The council has the option to choose locations, regardless of commercial viability, to ensure equity of access for residents	The whole life cost of the chargers is much higher due to ongoing leasing costs
Lower or zero capital costs, dependant on initial hire fees being applicable	The council will never own the charging equipment
Equipment is removed and returned if it becomes redundant	Equipment must be removed and returned at the end of the lease period
Hardware and software fault repairs included	The council will still be required to meet the cost of accidental damage and vandalism.

Model C - Private sector match funded partnership – Current model used by CCC

Private sector match funded models involve the chargepoint supplier owning the equipment for the contract duration and assuming all liability for ongoing maintenance costs, removing most risk to the council. Typically these agreements allow for the equipment to be transferred into the ownership of the council at the end of the contract for no additional cost, allowing the council to retain the hardware and continue to operate it under an own and operate model, or transfer it to a new supplier. Alternatively, the council can request that obsolete or underutilised equipment is removed at the supplier’s expense to enable the installation of new equipment by the council or a new supplier.

The network is owned and operated by the supplier; however profit share agreements provide an income back to the council directly based on usage of the network, thus providing an uncapped income potential. The supplier also receives a revenue based on utilisation and subsequently they are incentivised to maintain and repair chargers to maximise reliability and ensure a high quality service to attract and retain customers.

The government funding schemes for on-street chargers cover up to £6,500 or 75% of eligible capital costs per charger, with the remaining 25%+ match funding being provided by either, the authority (as in the ‘own and operate’ model), or the private sector. Where government funding is not available, private sector funding can be matched with local authority capital to reduce the up-front financial cost to the council. For locations deemed commercially attractive, it may also be possible to secure a 100% private sector funded option where the charger is paid for in full by the supplier.

Advantages	Disadvantages
Low or zero capital cost to the council when utilising government grants or installing in high demand locations	The council may be required to pay some capital costs if proposing a charger in a location that’s likely to be low demand
The council can choose locations, regardless of commercial viability, to ensure equity of access for residents	The amount of capital the provider is willing to invest on new chargers or network upgrades will reduce as the contract end date approaches
Short to mid-term contracts which typically include early buyout options	An income will only be provided to the council if the chargers are used and this may be lower than expected
Continued investment into the network by the private sector partner with zero ongoing cost to the council	Equipment may require replacement at the end of the contract if it has become obsolete
Uncapped income potential to the council through profit share agreements	The council will receive a lower proportion of the revenue when compared to an own and operate model

Model D - Concession Arrangement

A concession model is an agreement where a chargepoint operator will offer to install charging equipment on council owned land or the public highway, free of charge. This model is low risk, but low reward, often these agreements provide a small guaranteed income or ‘rent’ to the council in return for allowing the equipment to be installed which is paid regardless of how high or low the usage of the chargers is, however the council is never liable for any costs associated with the chargers.

Under a concession model, the operator will only offer to install chargers in high demand locations where they are confident that the chargers will return their initial investment costs quickly and provide them with an ongoing profit.

Concession model agreements are typically long term, requiring a 10-30 year contract which enables the supplier a better chance of recouping their costs and maximising profitability over the duration of the term. Under this type of agreement, the council would act as a facilitator/landlord rather than having an active involvement in the operation and delivery of the charger network. The cost to the end user is often set at the sole discretion of the supplier and expansion of the network or addition of new chargers is also at the supplier’s sole discretion. The council are limited in their ability to expand the provision as the supplier will usually only consider this where usage is extremely high and the opportunity is commercially attractive, although the council may be able to pay both the capital and ongoing costs to provide a charger in a specific location. These agreements typically include exclusivity clauses, so the council is unable to add additional chargers from another supplier.

Advantages	Disadvantages
Some income shared/rent paid by concessionaire to the council	Lower income potential compared to other models
Chargepoint operator is responsible for maintenance	Low usage on some or all chargers may make the operator reluctant to spend money on repairs and maintenance
Reduced risk to the council in terms of income not meeting ongoing maintenance and operation costs	Concessionaire likely to only be interested in profitable sites or where cross-subsidisation can occur resulting in reduced LA control over locations
Some contract renewal terms require the concessionaire to update and refresh equipment and software	The market is limited with only a few suppliers offering concession model agreements
No capital costs	Long contract terms tie the council in beyond the foreseeable future and restrict the council's ability to react to demand or capitalise on increased usage