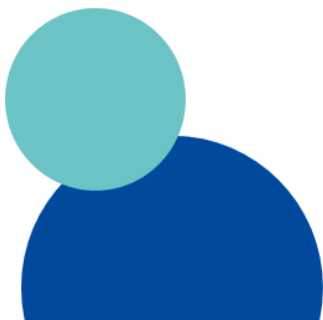




Waverley Borough Council
Electric Vehicle Strategy
2021-2026

Latest version number: 1.1 Draft
Latest publication date: May 2022



Document Information & Governance

Approval & Publication:

Approval & Publication:

Approving Body	Approval route requirement	Publication Type	Publication requirement	Review frequency	Document owner	Next Review Date
<i>e.g. Executive, Council,</i>		<i>Internal/ external</i>	<i>Required by x legislation</i>			
<i>E.g. Management Board</i>	<i>There are no legal or constitutional requirements for approval</i>	<i>Internal</i>	<i>There are no legal or constitutional requirements for publication</i>	<i>Annually</i>		<i>April 2022</i>

Version Control Information:

Version	Version Status (<i>Draft, Approved /Published Internally or Externally</i>)	Date	Version Comment	Version Author
V0.1	Draft	14/12/2020	Creation of the document	Delma Bryant
V0.2	Approved Draft		Approved by JCC	
V0.3	Approved Draft	26/01/2021	Approved by Management Board	
V0.4	Final Approval	31/03/2021	Approved by the Executive	
V1	Published	08/04/2021	1 st Publication	
V1.1	Draft	17/05/2022	In year corrections	
V1.2	Final Approved & Re-Publication		In year correction approval by Management Board	
V2			Full Annual review	

Impact Assessments and Consideration:

Impact Assessment Type	Required / Not Required	Date Completed	Impact Assessments and Considerations Comment	Assessment Owner
Equality Impact Assessment				
Health in all Policies				
Data Protection Impact Assessment				
Climate Change				

Figure 1 - New registered Battery and Plug in Hybrid EV in Waverley 8
Figure 2 - Potential growth of Electric Vehicles in Waverley 9
Figure 3 - Number of EV chargers required in Waverley for Net Zero trajectory 9
Figure 4 - Types of Electric Chargers..... 12

DRAFT

Electric Vehicle Strategy 2021-2026

Table of Contents

Document Information & Governance	2
Executive Summary	5
Introduction	6
Policy Context	7
National	7
Regional - Surrey County Council	7
Local - Waverley	7
Demand for EV charging	7
Aims and objectives	10
As the owner of car parks, properties and land:	10
As a local authority and employer:	10
As a licencing authority:	10
As a planning authority:	10
Finance	11
Alignment with existing strategies	11
Electric Vehicle Chargers	11
Existing EV charging network across Waverley	12
Council owned EV chargers	12
Developing a public network across Waverley Borough	12
All public chargers across Waverley	12
Car Parks and on street	12
Additional Installations	13
Developing a network in Waverley owned developments	14
New Builds	14
Existing Waverley Developments	14
Transport Sectors	14
Taxis	14
Lead by example	15
Waverley owned vehicles	15
Staff owned vehicles	15
Contractor vehicles	15
Challenges	15
Targets and monitoring	16
Review	16
EV Charger Roll Out Action Plan	17

Executive Summary

This strategy realises the potential demand for electric vehicles (EV) and addresses the concerns of EV users. Our vision is that, by 2026, Waverley's residents and businesses will be able to use electric vehicles every day and for any purpose. They will be confident that they will be able to recharge them quickly and conveniently, taking advantage of their lower cost operation and in doing so helping improve air quality.

Both Surrey County Council and the UK Government are promoting the uptake of ultra-low emission or electric vehicles as a means of reducing pollution in cities and towns. Waverley Borough Council supports this movement and will procure ultra-low emission or preferably electric vehicles for its own fleet at the earliest opportunity and request that contractors do the same. An increasing number of Waverley residents have been requesting electric vehicle charging points near their homes in the borough.

Our strategic objectives are to:

- Reduce greenhouse gas emissions at the vehicle exhaust.
- Reduce emissions of harmful nitrogen oxides (NOx) and particulate matter (PM) emissions. Fewer exhaust emissions mean improved air quality and therefore better public health.
- Make a proportionate contribution to the reduction of greenhouse gases and work towards carbon neutrality by 2030.
- To manage change to ensure Waverley remains a thriving and sustainable community in the future

Our target audience for this strategy is:

- Our residents, visitors, and businesses.

By 2026, we need to have significantly less polluting traffic on our roads, contributing to an improvement in air quality across the borough and significant reductions in carbon emissions.

Introduction

The majority of vehicles in Waverley today run on either petrol or diesel fuel. Petrol and diesel are known to cause pollution, which is harmful to public health and contributes to climate change. Improvements in technology and a push towards lower emissions is however causing a shift towards electric vehicles. An electric vehicle generates zero carbon emissions at point of use and even when considering the lifecycle of the electricity there are significant carbon savings.

Over the last few years, the demand for electric vehicles has greatly increased. Figures published by the Society of Motor Manufacturers and Traders (SMMT) show that there were 3,500 plug-in car registrations in 2013. This figure has increased to approximately 395,000 plug-in cars by December 2021 ¹. The Climate Change Commission in its 6th Carbon Budget² predicts that 43% of cars on the road by 2030 would need to be electric for a balanced pathway to net zero. Klynveld Peat Marwick Goerdeler (KPMG) working for Surrey County Council have estimated that across Surrey 1600 fast chargers and 100 rapid chargers would be needed by 2025.

Both vehicle manufacturers and Governments are working to build interest in the use of alternative fuels. In Waverley there has been an increasing interest in availability of electric vehicle charging points due to more widely available EV technology and reduced costs of electric vehicles. To cater for the forthcoming increase in electric vehicle use, Waverley is committing to invest in EV infrastructure so that the borough is prepared for the future.

Waverley Borough Council has an important role to play in supporting growth in electric vehicles by creating a supportive policy environment; enabling the creation of new charging facilities for electric vehicles; promoting their benefits to a wider audience; working with its partners and private enterprises to encourage wider take up; promoting electric car clubs and with educational campaigns. Waverley will lead by example by ensuring our own activities use cleaner technology at the earliest opportunity where it is practical and offers the taxpayer good value for money.

Waverley is an area that is well-suited to adopting electric vehicles and the council is keen to help realise this potential through this strategy, and make sure Waverley remains a thriving and sustainable community in the future.

Waverley Borough Council is pleased to present its Electric Vehicle Strategy as a way of supporting the growth in electric vehicle use in the borough and nationally.

¹ <https://www.nextgreencar.com/electric-cars/statistics/>

² <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

Policy Context

National

The UK's Road to Zero Strategy sets out the Government's aim for all new cars and vans to be effectively zero emission. In November 2020 it was announced by the Government that the end to the sale of new petrol and diesel cars would be brought forward from 2040 to 2030. The government expects this transition to be industry and consumer led, supported in the coming years by the measures set out in the strategy.

Regional - Surrey County Council

Surrey County Council (SCC) declared a climate emergency in July 2019. The motion states that the council will commit to lowering emissions to zero by 2050. All districts and boroughs have committed to reducing their carbon emissions, many declaring climate emergencies too.

There are 28 Air Quality Management Areas across the whole of Surrey. Surrey County Council in its Climate Emergency Strategy have committed to work with all districts and boroughs across the county in a joint working approach to decrease emissions from transport.

Local - Waverley

Waverley Borough Council declared a climate emergency in September 2019. The motion states that the council will commit to becoming a carbon neutral council by 2030, while supporting the local area to also become carbon neutral. The Council recognises that this is an ambitious but realisable target. Transport accounted for 40% of the emissions across Waverley in 2015. In our Carbon Neutrality Action Plan Waverley committed to facilitating the switch to electric vehicles.

A study from Nottingham University in 2020 estimated that if all vehicles were electric, UK carbon emissions would fall by 12%. It is estimated that an average new car run on petrol travelling 20,000km in a year is responsible for almost 2 and a half tonnes of CO₂ in a year. Encouraging a switch to electric vehicles has enormous benefits in reducing the carbon footprint in Waverley.

Demand for EV charging

As the government have now brought forward the date that marks the end of the sale of new petrol and diesel vehicles to 2030 the demand is expected to increase rapidly in the coming years. The reduction in initial cost to purchase a vehicle together with increasing numbers of EV models will no doubt assist with the transition.

The UK has seen a surge in demand for ultra-low emission vehicles, including EVs. In January 2022 12.5% of new registered cars were battery electric vehicles compared to 6.9% in January 2021 and 7.9% were plug-in hybrid compared to 6.8% in January 2021³. The pace of demand and ever-changing technology means that by 2030 this is expected to have increased significantly.

These cars are broken down into three types:

- Battery Electric Vehicles (BEVs)
- Plug-in Hybrid Electric Vehicle (PHEV)
- Hydrogen Fuel Cell Electric Vehicles (FCEV)

As of November 2021, Waverley has the second highest Electric Vehicle ownership in Surrey and EV registrations in Waverley have doubled in two years.

Figure 1 below demonstrates the rapid growth in registered plug in and hybrid EVs in Waverley between Quarter 4 in 2011 and quarter 3 2021.

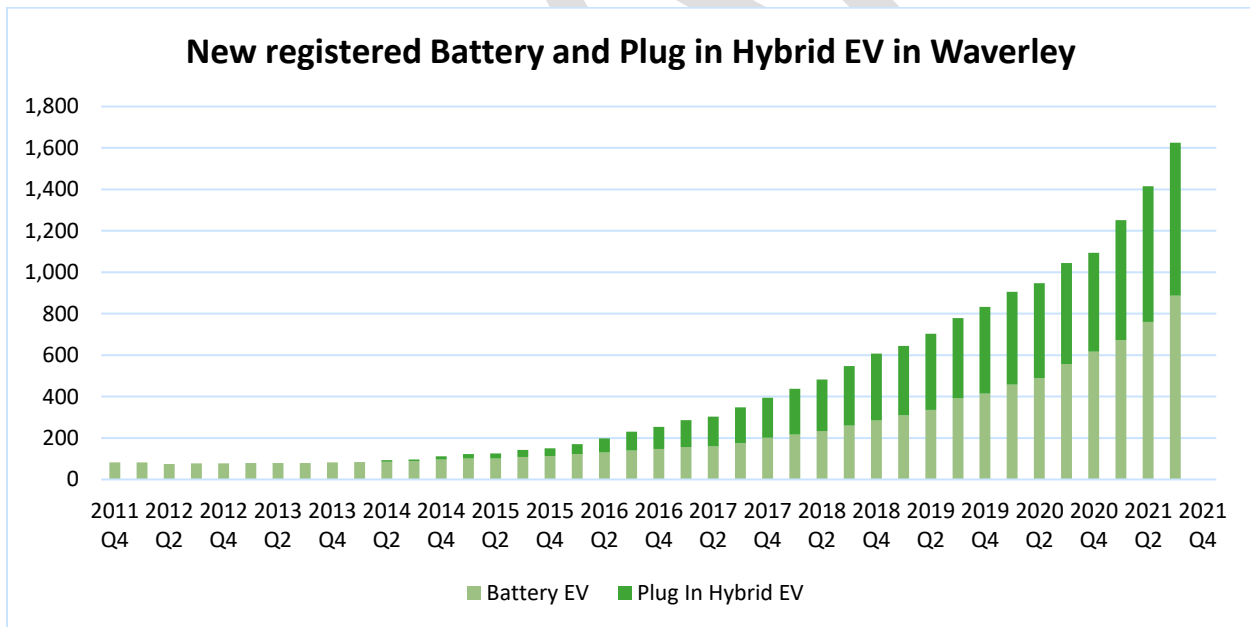


Figure 1 - New registered Battery and Plug in Hybrid EV in Waverley

Source: Department for Transport Statistics – Vehicle Licensing Statistics (Table VEH0132)
<https://www.gov.uk/government/collections/vehicles-statistics>

³ <https://www.smm.co.uk/vehicle-data/car-registrations/>

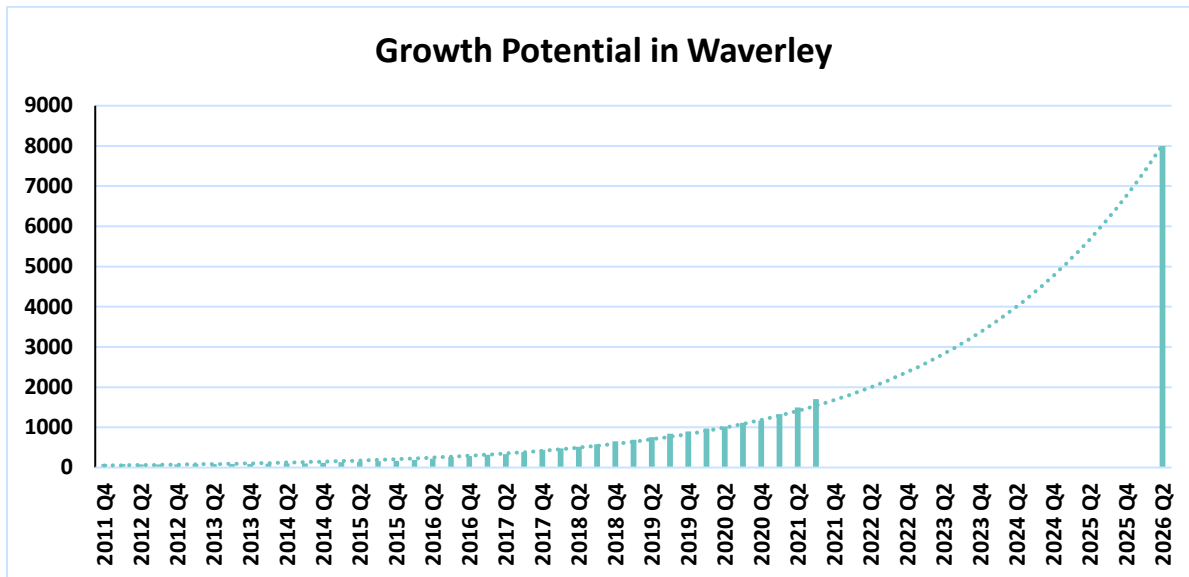


Figure 2 - Potential growth of Electric Vehicles in Waverley

Figure 3 above demonstrates the potential growth in registered EV's in Waverley based on an exponential growth. As the number of registered electric vehicles is expected to rise rapidly in the coming years it is important that Waverley Borough Council delivers this strategy to provide the infrastructure required to support the growth in the EV car market. SSE with the National Grid have calculated the number of EV chargers that would be required in Waverley to meet the Governments Net Zero target by 2050. The diagram below covers the period of this strategy.⁴ On 1st April 2021 there were 29 public charging points in Waverley.⁵

Number of EV chargers required in Waverley for Net Zero trajectory						
Site	2021	2022	2023	2024	2025	2026
Car parks (public and private)	21	29	33	42	48	56
Destination	91	91	95	112	144	170
Domestic on-street	0	1	30	69	142	182
En-route / local charging stations	5	9	14	16	22	29
En-route national	0	0	0	0	0	0
Fleet/depot	0	0	1	3	5	9
Off-street charger	1673	2466	3501	4853	6560	8701
Workplace	25	47	75	108	140	186

Figure 3 - Number of EV chargers required in Waverley for Net Zero trajectory

⁴ <https://www.ssen.co.uk/WorkArea/DownloadAsset.aspx?id=19430>

⁵

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040521/env0601.ods

Aims and objectives

The aim of this strategy is to:

Develop a borough wide approach to encourage the transition from petrol and diesel vehicles to electric vehicles as part of a sustainable transport system, to make sure Waverley remains a thriving and sustainable community in the future.

To fulfil this aim we have set the following objectives:

As the owner of car parks, properties and land:

- Encourage the uptake of EVs amongst Waverley resident, visitors, and businesses by the provision of an easily accessible, convenient, and affordable public charging infrastructure across the borough.
- Respond flexibly to fast-paced developments within the EV sector, keeping residents and businesses up to date on those developments via the Waverley website.

As a local authority and employer:

- To lead by example by using EV technology to reduce our environmental impact and work with our contractors and staff to do the same.

As a licencing authority:

- To engage, inform and encourage Waverley taxi drivers to switch to more sustainable vehicles and in line with our Carbon Neutrality Action Plan.
- Working with SCC to identify key locations for EV chargers that are suitable for taxi drivers.

As a planning authority:

- Use the Surrey County Council Vehicular and Cycle Parking Guidance (January 2018) or any subsequently updated local guidance and legislation to ensure EV charging points are designed into new developments.
- Use conditions on planning applications to ensure that EV charging points are delivered on new developments.

Finance

Installing and maintaining charging points as well as switching pool vehicles to electric may create an additional cost to the council, at a time when funding is constrained. Opportunities for external funding will be pursued when they are available. Further projects will be supported by a business case and be submitted for appropriate approval as opportunities arise.

Alignment with existing strategies

This strategy forms one part of Waverley's response to our Climate Emergency declaration and should be considered alongside the following strategies:

- Carbon Neutrality Action Plan
- Staff Travel Policy
- Hackney Carriage and Private Hire Policy
- Clean Air Strategy and Air Quality Action Plan
- Local Plan Part 1
- SCC EV Strategy
- Vehicular and Cycle Parking Guidance
- HRA (Housing Revenue Account) Asset Management Strategy

Electric Vehicle Chargers

Currently there are four main types of chargers:

Slow	<ul style="list-style-type: none">• Typically rated up to 3kW. Often used to charge overnight• 8-10 Hours
Fast	<ul style="list-style-type: none">• Typically rated 7kW or 22 kW. Tend to be installed in car parks, leisure centres and properties with on and off street parking• 3-4 hours
Rapid	<ul style="list-style-type: none">• Typically rated 43kW+. Only compatible with EVs with rapid charging capacity. Tend to be installed in short stay car parks.• 30-60 minutes
Ultra Rapid	<ul style="list-style-type: none">• Typically rated 120 kW+. Typically found in service stations• A few minutes

Existing EV charging network across Waverley

Council owned EV chargers

In 2019 Waverley Borough Council commenced a programme to roll out EV chargers across the borough including car parks. The current chargers installed by Waverley and SCC are listed on the action plan on page 17 of this strategy.

Developing a public network across Waverley Borough

All public chargers across Waverley

The number of chargers across the borough are increasing but not all of them are public. Many existing ones are owned by hotels, are private or work-based chargers. A map of current EV chargers across the borough can be found on Zap Map (<https://www.zap-map.com>)

The current level of public charging provisions is too small to meet the projected level of demand. Charge points in car parks and overnight resident chargers will need to be increased to cater for the demand. Most of Waverley's residents do not have access to off-street parking, on-street parking charge points will be required to meet the additional demand.

Car Parks and on street

To encourage the uptake of electric vehicles in a proportionate and sustainable way whilst ensuring value for money the development of the Waverley EV charging network will be approached in a phased way. This will ensure that sufficient EV chargers are installed to promote the switch to electric vehicles whilst ensuring all residents are catered for.

Phase 1 - 2019-2022 Waverley Car Parks

8 rapid charging bays (50kW) will be installed in Godalming, Haslemere, Cranleigh and Farnham. The number of rapid chargers in each hub will be determined by the size of the hub and the potential demand at that time. Further chargers will be installed as demand grows and in consultation with local Towns and Parish Councils.

SCC Pilot Phase 1 – 2021-2022 – On Street SCC Pilot Scheme

SCC working in partnership with Waverley will install 20 on street fast chargers, borough wide, in streets with no off-street parking. Sites will be considered based on

essential criteria which includes, a request by a resident for a charger, a street with no off-street parking, availability of power supply, width of pavement, air quality in the area and existing parking restrictions.

Phase 2 – 2022-2024 – Further Waverley Car parks and Leisure Centres

Further chargers will be installed in Waverley owned car parks. EV charger size and number of chargers installed will be based on the average length of stay and car park location. Waverley is working with Places Leisure to identify opportunities for EV charger installations in Leisure centre car parks.

SCC Pilot Phase 2 – 2022-2023

SCC will install a further 20 on street fast chargers, borough wide, in streets with no off-street parking. SCC will consult with Waverley and the town and parish councils to identify suitable sites.

Phase 3 – 2024-2025 – Increasing numbers in existing car parks

As the uptake of EV cars increase, Waverley will expand the number of EV chargers in the main cars. The size and quantity will be based on grid capacity and potential demand.

Phase 4 – 2025-2026 – Green Spaces

Waverley will work with SCC, Town and Parish Councils and other relevant landowners to identify suitable sites for EV chargers near our Parks and Countryside hubs. Availability of power supply will be critical and the option to power by renewable energy will be considered where there is a limited supply. The size and quantity will be assessed based on potential demand.

Additional Installations

In addition to the phases outlined above we will explore opportunities for further installations when opportunities arise. As Waverley owned car parks are refurbished the requirement to install EV chargers will be considered depending on size and potential demand.

All new car parks will be required to have EV charger provision in accordance with the new Building regulations expected to be released in June 2022.

Developing a network in Waverley owned developments

New Builds

All new builds will require EV charging provision in accordance with Local Plan Part 1 Policy ST1, Neighbourhood plans and Surrey County Council Vehicular and Cycle Parking Guidance. The capacity to install EV charger should be considered at design stage.

All new Waverley owned houses with off street parking are now provided with an EV charger. For properties with communal car parks the number of chargers installed will be in proportion to the size of the car park and include the possibility to increase the number of chargers as demand grows.

For developments with no off-street parking, EV chargers/infrastructure will be installed in proportion to the number of properties being built and potential demand.

Existing Waverley Developments

To ensure that existing Waverley tenants can switch to electric vehicle if they wish to do so, requests from residents to install chargers at properties with off street parking will be considered by the Asset Management Team.

The installation of fast EV chargers/infrastructure in communal car parks should be rolled out in proportion to population and demand for EV chargers or as required in a planning requirement.

On street EV chargers/infrastructure should be installed on streets with no off-street parking in proportion to population and demand from residents.

Future direction with regard to EV will also be part of the future development of the Asset Management Strategy.

Transport Sectors

Taxis

The Hackney Carriage and Private Hire Policy has been updated and vehicles submitted for a new application from 1 January 2024 must be an Ultra-Low Emission Vehicle (ULEV) as defined by the Vehicle Certification Agency. <https://www.vehicle-certification-agency.gov.uk/fcb/ulev.asp>

Lead by example

Waverley owned vehicles

Waverley currently owns one electric pool car and has committed in their Climate Neutrality Action Plan to transition the council owned fleet to electric vehicles when vehicles are due to be replaced.

Staff owned vehicles

The council has limited influence over employee's own choice of vehicle to commute to and from work. A staff travel plan is currently being explored to incorporate incentives for employees to choose more sustainable commute option.

Contractor vehicles

Waverley is committed to encouraging the switch of all contractor vehicles to electric as part of its net zero carbon commitment by 2030. Zero emission vehicle options will be explored when contracts are procured or renegotiated.

Challenges

Available power capacity on the local electricity network varies across the borough and is typically limited in built-up areas. To make sure that the local electricity network is not over capacity, the council will work with energy providers and the DNOs (distribution network operators) to determine the best installation locations. By taking this strategic approach the council hopes that the installation of EV chargers will have a minimal effect on the local network.

The costs of upgrading the local electricity network to unlock spare capacity is often too high to justify new EV charge points. To unlock spare capacity the council would have to invest in a new substation which can cost upwards of £250,000.

There will be financial implications to the council for the removal of charge points if they become damaged, obsolete or a charge point supplier folds.

The Council may be liable for maintaining and repairing damaged/vandalised charge points that are under its ownership.

Planning/heritage/conservation restrictions may restrict the location of charging points.

Utilities (gas, electric, and telecom) cables and pipes tend to be located either under the pavement or close to the edge of the carriageway, which may preclude installation of new charge points in some locations. It may also be expensive to dig up the ground to reach the cables.

Targets and monitoring

The monitoring plan in this chapter sets out how the Council will keep track of the delivery of its overall strategy visions and objectives.

Target	Measurement	Baseline	Target
Expansion of charging network according to Phases listed above.	Number of charging point locations	4 locations by 31 st March 2021.	At least 35 locations by 2026
Use renewable energy to power charging points	Number of charging points powered by a renewable or green energy	0	To have at least 50% of all charging points to be charged by renewable or green energy.
Waverley's licensed taxis to switch to EV	Number of licensed taxis that have switched to EVS	22 Hybrid	New applications to be ULEV from 2024, pending switch to zero emissions requirement

Annual delivery indicators	
Indicator	Measurement
Number of charging points implemented (broken down by type)	Council data
Air quality improvements	Reductions in NOx and PM across the borough
Number of charging points provided in new developments	Council planning data

Review

This document represents the second iteration of the council's Electric Vehicles Strategy. This strategy will be reviewed yearly to ensure that it remains fit for purpose and up to date with changes in legislation and funding availability

EV Charger Roll Out Action Plan

Installed and proposed chargers for Waverley car parks and SCC on street project

Phases	Sites	Number of bays and type of charger	Status
1 Waverley Car Parks 2019-2022	Haslemere High Street Stocklunds Square, Cranleigh Crown Court, Godalming Riverside 3, Farnham The Burys, Godalming	2 x 50kw 2 x 50 kw 2 x 50 kw 2 x 50 kw + 4 x 22kw 3 x 7kw	Installed Installed Installed Installed Installed
	Brightwells	18 x 22kw public chargers, 48 x 7kw private chargers	Planned for 2022
Surrey On Street Chargers 1 2021 - 2022	Hale Road, Farnham Farnham Lane, Haslemere Summer Road, Farncombe	2 x 22kw 4 x 22kw 4 x 22kw	Installed Installed Installed
	Station Road, Farncombe Catteshall Lane, Godalming	4 x 22kw 6 x 22kw	Planned for 2022 Planned for 2022
2 Further Waverley Car Parks and Leisure Centres 2022-2024	Lower Hart, Farnham	6 x 200 kw ultra-rapid	Planned for 2022
	South Street, Godalming	2 x 150 kw	Planned for 2022
	Chestnut Avenue, Haslemere	2 x 150kw & 2 x 22kw	Planned for 2022
	Queens Street, Godalming	2 x 22kw	Planned for 2022
	Croft Road, Godalming	2 x 22kw	Planned for 2022
	Station Lane, Milford	2 x 22kw	Planned for 2022
	Haslemere Leisure Centre	2 x 22kw	Planned for 2022
	Waggon Yard, Farnham	2 x 22kw	Planned for 2023
	Village Way, Cranleigh	50kw	Potential site
	The Hart, Farnham	50kw	Potential site
	Memorial Hall, Farnham	50kw	Potential site
	Central Car Park, Farnham	22kw	Potential site
	Farnham Leisure Centre	22kw	Potential site
Weydown Road, Haslemere	7kw	Potential site	
Upper Hart, Farnham	Unknown	Potential site	
Meadrow, Godalming	Unknown	Potential site	

Surrey On Street Chargers 2 2022-2023	Bourne Road, Farncombe Morley Road, Farnham Beacon Hill Road, Hindhead Ballfield Road, Farncombe Wolseley Road, Godalming	20 x 22kw	To be installed by March 2023 subject to consultation.
3 Increasing numbers in existing car parks 2024-2025	Haslemere High Street Stocklunds Square, Cranleigh Riverside 3, Cranleigh Burys	2 x 22kw due to capacity 2 x 22kw due to capacity 2 x 22kw due to capacity 3 x 7kw chargers	Potential Site Potential Site Potential Site Potential Site
4 Green spaces 2025-2026	To be determined subject to grid accessibility	To be determined	