

# Electric Vehicle Strategy 2023-2025



South Hams  
District Council

**October 2023**



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# Foreword

Whilst EVs aren't the primary panacea for our transport emission in South Hams, the adoption of electric vehicles (EVs) represents one of many technological changes needed to reduce greenhouse gas emissions. The development and implementation of an Electric Vehicle Strategy is a testament to our commitment to leading this charge.

It is imperative to recognise that the decisions we make today will shape the future for generations to come. As such we need to embrace innovation, adaptability, and a forward-thinking approach. This Electric Vehicle Strategy serves as our blueprint for navigating this dynamic terrain, to both help facilitate people's transition from fossil fuels and also our own transition to reduce or organisational emissions.

By embracing EVs, we pave the way for cleaner air in our towns and reduced noise pollution. Moreover, the transition to electric mobility presents an opportunity to empower individuals, businesses, and communities alike with greater choices.

In these pages, you will find a plan that encompasses not only the development and deployment of electric charging but also plans to reduce marine emissions and help improve the resiliency of our charging network as we look to bring charging installation in house so we can have greater controls on delivery and costs.



**Cllr John McKay**

South Hams  
District Council

Executive Member  
for Climate &  
Biodiversity



# Introduction

South Hams District Council declared a Climate and Biodiversity Emergency in July 2019. Following this a Climate Change and Biodiversity Strategy was adopted in December 2020.

The Council has committed to the following aims:

- That the Council aim to reduce its organisational carbon emissions to net-zero by 2030;
- That the Council commit to working with partners through the Devon Climate Emergency Response Group to aim to reduce the District of South Hams' carbon emissions to net-zero by 2050 at the latest;
- That the Council aim for a 10% Biodiversity Net Gain in the habitat value of its green and wooded public open space by 2025.



As a proportion of overall emissions, **Transport emissions account for around 27% of all emissions** in South Hams and as opposed to other sectors, hasn't seen much of a reduction. The Council's Climate and Biodiversity Strategy recognises that a **reduction in total vehicle miles travelled and electrification of surface transport is needed** to meet both climate and air quality goals, and that Electric Vehicle (EV) charging infrastructure in South Hams needs to scale up significantly. However, for certain activities and particularly in rural areas of South Hams with limited public transport provision, cars and vans are the most suitable means of transport. Replacing petrol and diesel vehicles with electric vehicles, alongside facilitating a modal shift in the better populated areas is a key part of our decarbonisation goals.

This is supported nationally through the Department for Transport's (DfT) Decarbonising Transport document July 2021, which sees increasing cycling, zero emission vehicles and accelerating maritime decarbonisation as key issues<sup>1</sup>. Furthermore, the Office for Zero Emission Vehicle's (OZEV) Taking the Charge EV strategy launched in March 2022, which outline the Government's plans for meeting targets to decarbonise transport and reduce reliance on fossil fuels. The Local Authority Toolkit, launched in April 2022, also offers additional evidence to support this, and highlights the

<sup>1</sup> Department for Transport. 2020. Transport Decarbonisation Plan. [www.gov.uk/government/publications/transport-decarbonisation-plan](https://www.gov.uk/government/publications/transport-decarbonisation-plan)

synergies with other low carbon transport modes.

The UK Government has revised its targets to phase out petrol and diesel cars, they will require 80% of new cars and 70% of new vans sold in Great Britain to be zero emission by 2030, increasing to 100% by 2035.

According to the Department for Transport, the current transport system places wider costs on society:

- **Air pollution costs** to health and social care could reach £5.3 billion by 2035.
- The Stern Review estimated the **overall costs of unmitigated climate change** to be equivalent to 5–20% of global GDP each year £10bn.
- It's estimated that the **annual social cost of urban road noise** in England is £7 to 10 billion.
- **Health and obesity** – The UK-wide NHS costs which are attributable to overweight and obesity are projected to reach £9.7 billion by 2050.
- **Overall the current cost of the transport system** to society is £49.9bn with wider costs to society estimated to reach £49.9 billion per year.

The Government see a clear role for local authorities for the roll out of EV chargers in particular through its EV strategy 'Taking charge: the electric vehicle infrastructure strategy'<sup>2</sup> stating that local authorities are fundamental to successful chargepoint rollout, particularly for the deployment of widespread on-street charging. They are therefore ideally placed to identify the local charging needs of residents, fleets and visitors.

In order to demonstrate our commitment to the uptake and deployment of electric vehicles, this document sets out our vision and planned approach to EV and travel support. A two-year time horizon has been set for this EV strategy, covering 2023–25. This short time horizon allows the strategy to focus on what is currently known, the current funding streams on offer, what can be practically delivered, and for the EV market in the UK to mature. The strategy will be reviewed regularly to provide opportunity to reflect upon rapid technological and socio-economic change, with a refresh published in 2025.

<sup>2</sup> HM Government, 2022. Taking charge: the electric vehicle infrastructure strategy. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1065576/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065576/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf)

# Scope of this Strategy

The scope of this Strategy is limited to vehicle charging with an element of transport decarbonisation through the use of electric power in the bike and marine sectors.

We agree with the Committee for Climate Change in their view that zero emission cars and lorries cannot on their own meet all our climate goals or solve all our problems. However, we do need to influence this transition as an electrified transport fleet is a piece of puzzle, alongside reducing the need for trips to reduce congestion and provide safe alternatives to improve air quality, reduce noise and increase health and wellbeing. In essence, a rural solution to transport decarbonisation will involve combining public transport with more tailored on-demand and shared mobility services, including peer-to-peer and volunteer-based solutions.

With all that in mind, this electric vehicle strategy covers the following areas:

- Destination Charging
- Residential and Community Charging
- Marine Charging
- EV and Charge Sharing
- E-bikes
- Council Fleet transition
- Charging at Council assets



The following is not included within the scope of this strategy:

- **Motorbikes** – There is currently low demand for e-motorbikes. Almost all e-motorcycles currently use 3-pin chargers and therefore no dedicated charging infrastructure is required.
- **Rail transport** – rail infrastructure is the responsibility of Network Rail. The Council has limited powers to influence the rail sector and its adoption of zero emission rail technology.
- **Heavy goods vehicles** – The adoption of zero emission vehicle technology will occur later than the period covered by this strategy. It is unclear at this time if electric or hydrogen will emerge as the primary energy source for powering freight vehicles.
- **Hydrogen power solutions** – The Climate Change Committee conclude that while battery electric vehicles are now well placed to deliver the bulk of decarbonisation for cars and vans, hydrogen fuel cell vehicles could play an important role for heavy-duty transportation (e.g. buses, trains, lorries and marine) where the need to store and carry large amounts of energy is greater. For personal transportation, hydrogen solutions are no better, or in some cases worse than current fossil fuel technology.
- **Active Travel** – Whilst this strategy will cover e-bikes, it is not a supplement to a full active travel strategy which will emerge as part of our Placemaking commitments through the 'Local Walking and Cycling Infrastructure Plan' we are developing.

# Local Picture

The main challenges involved with rural transport are symptoms of a car-oriented road infrastructure and geographically sparse population which makes it unsafe to walk and cycle. Coupled with insufficient provision of public transport and a lack of critical mass for shared mobility and market-driven solutions<sup>3</sup>, the challenges around decarbonising rural transport are vast and well documented.

In relation to the transition to electric vehicles, South Hams faces very specific challenges and there is a risk that more rural locations are left behind. For instance, many private charging businesses require high turnover of users, which is why cities and service areas off motorways have seen the largest increase in charging availability. Furthermore, many of the more remote areas in the District has issues around grid capacity, with some new EV connections requiring substation upgrades which can run into the tens of thousands of pounds. Equally, there is greater dependence on car travel, with longer trip distances than urban areas, providing a significant opportunity to reduce carbon emissions.

The number of EVs in South Hams is growing each year, with nearly four times as many EVs registered in both areas compared to just four years ago. There are high levels of interest in EVs in the District, combined with high levels of potential tourist demand for EV charging infrastructure. A range of EV charging infrastructure projects are already underway to support and enable this growth.

<sup>3</sup> UTIP, 2022. The rural mobility challenge for public transport: How combined mobility can help [https://cms.uitp.org/wp/wp-content/uploads/2022/02/Knowledge-Brief-Rural-Mobility\\_FEB2022-web.pdf](https://cms.uitp.org/wp/wp-content/uploads/2022/02/Knowledge-Brief-Rural-Mobility_FEB2022-web.pdf)

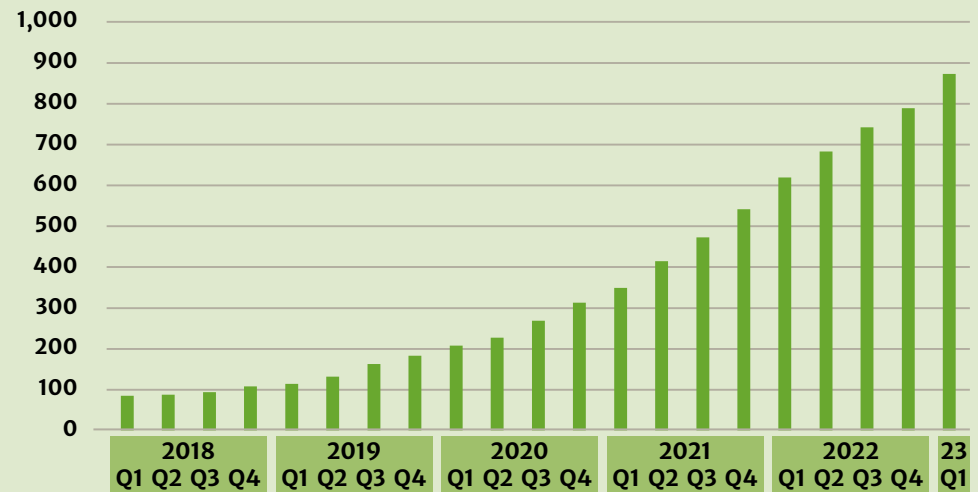
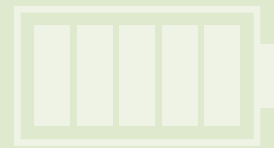


Figure 1: BEV's registered within the South Hams between 2018 and 2023 (DVLA, 2023)



Figure 2: Distance Travelled to work in South Hams, working age population (Census, 2011)

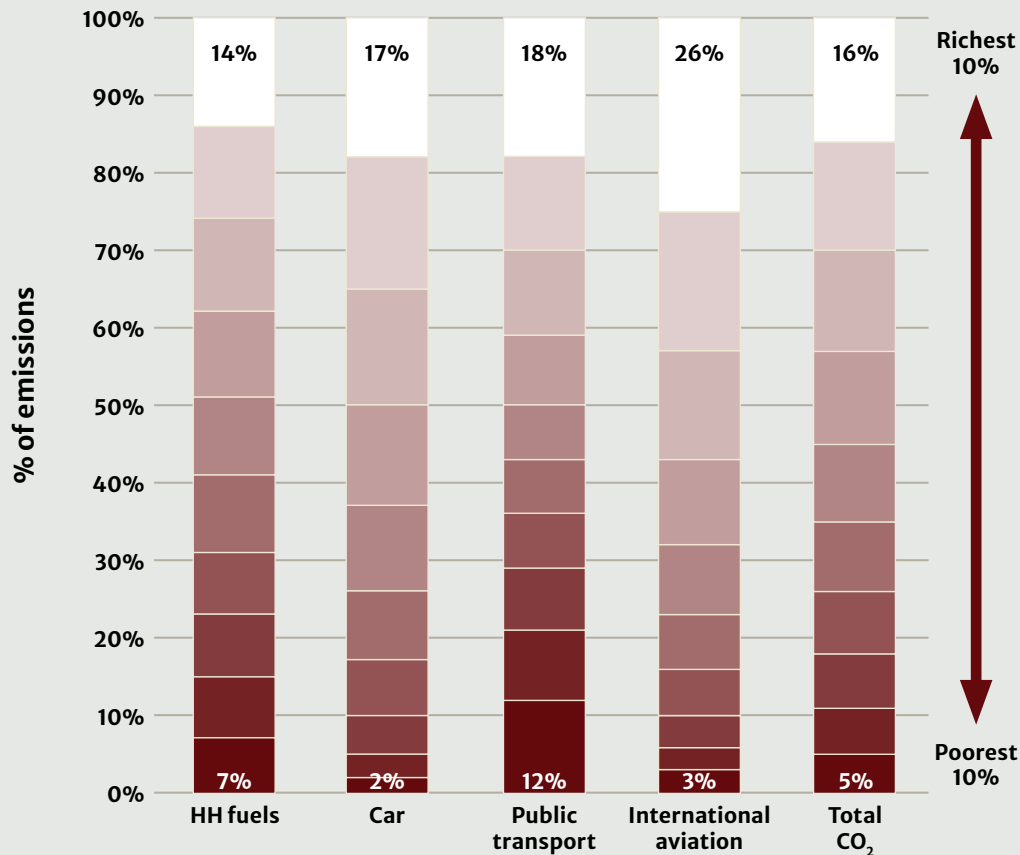


Figure 3: Percentage of UK household emissions from different travel sources by income decile – Source: CSE (2013)<sup>4</sup>

<sup>4</sup> [www.cse.org.uk/downloads/file/distribution\\_of\\_uk\\_carbon\\_emissions\\_implications\\_for\\_domestic\\_energy\\_policy.pdf](http://www.cse.org.uk/downloads/file/distribution_of_uk_carbon_emissions_implications_for_domestic_energy_policy.pdf)

In terms of future EV forecast, WSP have developed EV:Ready, which is a modelling tool that has been developed over the past five years to forecast electric vehicle uptake and charge point requirements for a chosen study area, between now and 2050. Forecast data is available from a consultation draft of the Devon County Council Electric Vehicle Charging Strategy by WSP. For South Hams, **table 1** (below) shows the forecast of EVs in 2025, 2030 and 2035 as well as a forecast percentage of overall vehicle types.

Table 1: EV Forecasts up to 2035, EV;Ready, WSP, 2022

Area	2025 Mid scenario	2030 Mid scenario	2035 Mid scenario	2025 (%) Mid scenario	2030 (%) Mid scenario	2035 (%) Mid scenario
South Hams	5,370	21,396	45,277	7.65%	30.02%	62.61%

The mid scenario represents the most likely level of uptake expected by 2030, there are wide variants between the scenarios however this is based on technological forecasts and behavioural change, as well as Government policy, legislation and subsidies that are available.

The majority of emissions are generated by the most affluent citizens, both globally and at a local level. Across the UK, the highest income group has more than three times the household emissions of the lowest income group. **Figure 3** shows UK household emissions from different sources by income decile. It shows that the most affluent in society have by far the largest share of transport emissions, primarily because of increased travel distances both by car and aviation.



In order to effectively tackle transport emissions through electrification, the solutions need to be equitable, fair and seek to provide different options for different people according to their needs and circumstances. Part of this will be ensure the charging infrastructure is available for those either living in remote areas or unable to install charging points at their own home but also to facilitate the availability of different options such as e-bikes and car sharing.

Relevant to South Hams is its marine transport. South Hams District Council is home to Dartmouth, Salcombe and Yealm harbours, all of which are popular with recreational boat users. The District Council own and operate a vehicular and passenger ferry service at Dartmouth and a busy water taxi service at Salcombe. The marine sector is currently undergoing considerable technological innovation. In terms of recreational boating, there has been a rapid increase in the demand for electric-powered motors amongst recreational boat users and this is likely to continue. Alongside this, there has also been an increase in, the availability of small electric onboard motorboats and electric outboard motors used to power RIBs and tenders. We have an opportunity to lead in this transition by supporting and accommodating the necessary charging infrastructure at our waterfront locations, working closely with harbour authorities and landowners.

## Constraints

EV charging delivery is heavily reliant on costs and grid capacity the UK EVSE Association have available some indicative costs associated with each charging type<sup>5</sup>.

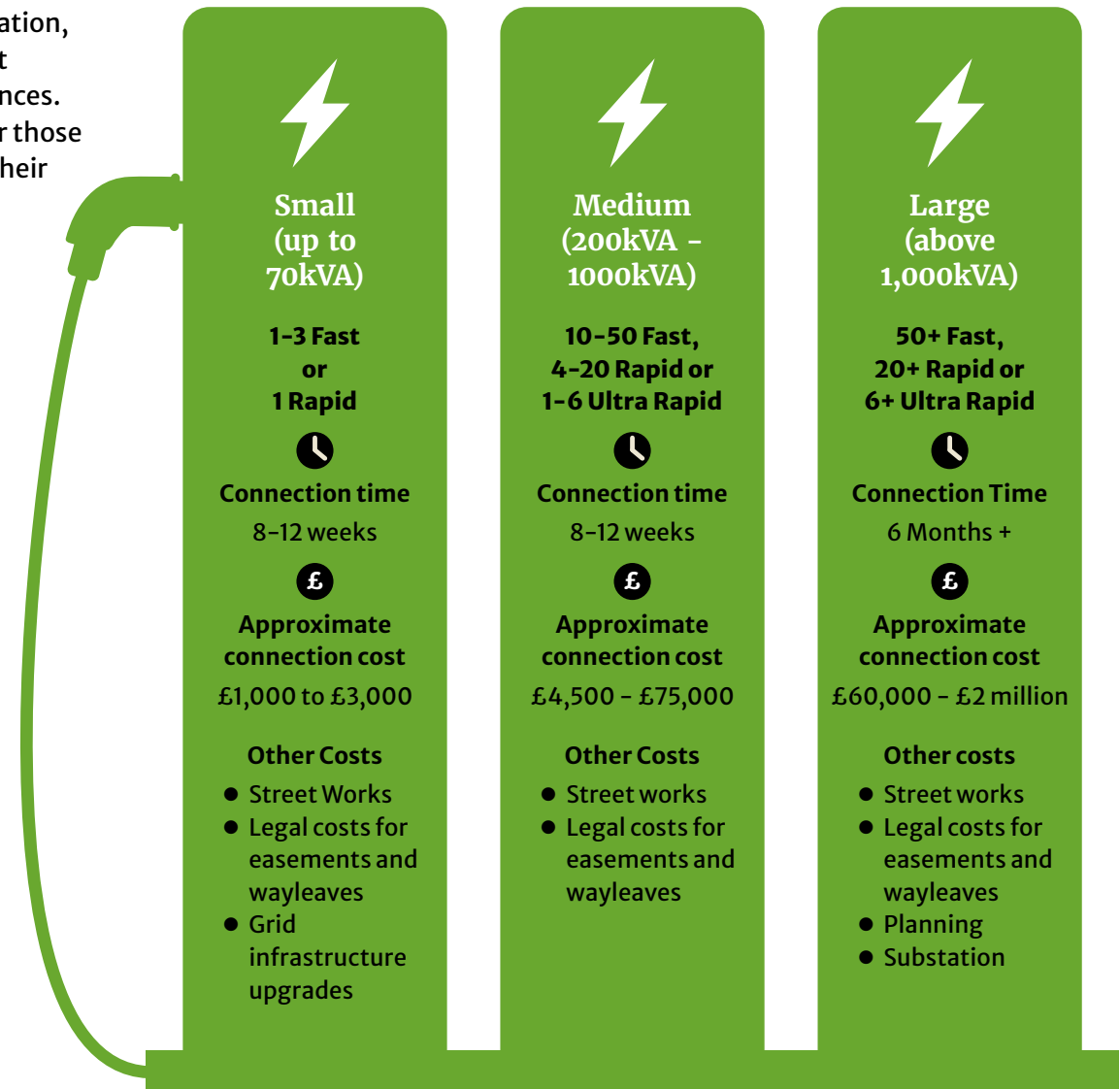


Figure 4 – Indicative connection costs, UK EVSE Association

<sup>5</sup> [www.r-e-a.net/wp-content/uploads/2020/03/Updated-UK-EVSE-Procurement-Guide.pdf](http://www.r-e-a.net/wp-content/uploads/2020/03/Updated-UK-EVSE-Procurement-Guide.pdf)



**Figure 5 - Primary supply substations capacity for demand in Devon, National Grid, 11/2022**

Primary - Intermediate substation generally where 33kV is transformed down to 11kV

- High - 20% total site capacity still available
- Medium - 10% to 20% total site capacity still available
- Low - Less than 10% total site capacity available

Contains Ordnance Survey data © Crown Copyright and database right 2023

Grid capacity varies across the District. National Grid has a map showing the capacity of primary substations for both generation and demand, EV chargers will be a demand type, the capacity of South Hams primary substations are shown on the left, this map does not show the entire picture in terms of constraints however.

Due to the large power demand of banks of EV chargers, grid upgrades will in most circumstances be required.

# Local Policy Context

This section presents a policy review, summarising relevant local policy. The South Hams District Council EV strategy should align with local policies and priorities.

## Devon Carbon Plan

The Devon Carbon Plan describes Devon's net-zero vision, specific actions within the Devon Carbon are related to EV. It notes:

- T32.** Develop EV Charging Strategies to deploy the right chargers in the right place.
- T33.** DCE partners to use their assets to provide publicly-accessible EV charging and shared mobility infrastructure.
- T34.** Provide electric charging infrastructure in harbours and marinas.
- T35.** DCE partners and organisations in the County to transition their fleets to Ultra Low Emission Vehicles.
- T36.** Accelerate the switch to Ultra Low Emission Vehicle taxis by placing requirements and incentives within the licensing process.



## Devon County Council EV Strategy

The Devon County Council EV Strategy was out for public consultation in December 2022. The recommended actions involve co-ordination between authorities and DCC to increase the availability of charging in more challenging areas and to collaborate on funding bids through schemes such as LEVI (Local Electric Vehicle Infrastructure Fund). Some of the relevant actions read:

- 2c. Deliver off-street residential hubs** - DCC will identify where there are overlaps between areas of need and Council or district-owned assets to see if publicly-accessible charging could be installed.



- 3. Plug gaps in private-sector destination and intermediate charging provisions** - DCC will actively identify sites where destination and/or en-route charging could be installed to meet market need. DCC will then work with landowner, community, public sector and private sector stakeholders to facilitate installation of rapid charging hubs.
- 7. Leverage scale through Devon-wide funding applications and procurement** - DCC will seek to collaborate with local districts and other strategic partners when applying for grant funding, procuring services, and delivering the strategy. Specific emphasis on packaging up more and less commercially viable sites together.
- 8. Lead on local district co-ordination** - clear benefits of ensuring local councils are co-ordinated, including strengthened funding bids. DCC will coordinate with district councils to ensure Local Plans and EV policies are consistent.

# What have we done so far?

- Local planning policy requires EV chargers for new major development (Plymouth & South West Devon Climate Emergency Planning Policy Guidance).
- 14 chargers installed through DELLETI and ORCS. The chargers installed at Mayors Avenue, Dartmouth are the most highly used of all the DELETTI charger installations in Devon.
- Introduced a salary sacrifice scheme for staff to lease EVs, currently 18 members of staff have taken up the offer.
- Undertook a survey with the Energy Saving Trust to help understand our fleet requirements.
- Acquired 4 fleet EVs and installed chargers at our depot.
- Installed chargers at new Batson Units in Salcombe and the Dartmouth Health Hub which are installed, owned and operated by South Hams District Council.



# Our Vision

Help to increase the number of charge points in the authority area by 50% to support uptake of 5370 EVs by 2025 and aim to reduce our organisational light fleet emissions by 50% from 166 tCO<sub>2</sub>e by 2025.



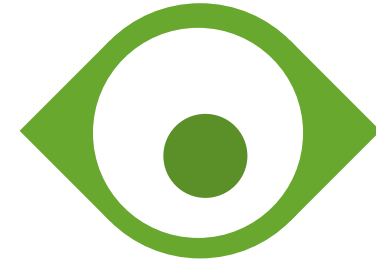
## How will we achieve this?



### Aim 1

Work with partners to provide high quality, and well distributed chargepoint provision

- Focus on identifying charging locations in less viable and remote locations to help grow demand in those areas.
- Assist residents and communities without off-street parking to access public chargepoints through partnership working.
- Make sure chargepoints and designated parking spaces are accessible and maintained.
- Begin to roll out EV chargers installed by SHDC which will be owned and operated by the Council.



### Aim 2

Increase visibility of EV uptake and lead by example

- Conversion of Council light fleet vehicles (Vans, cars and grounds maintenance equipment).
- Support the implementation and promotion of alternative and more affordable transport modes including EV car clubs and electric micro mobility options such as e-bikes.



## Aim 3

### Support the push for electrically propelled watercraft

- Decarbonise the tugs and floats used to operate the Lower Dart Ferry service through the use of alternative low carbon propulsion options over the long term.
- Provide information for visitors about electric motors and battery technologies.
- South Hams is already working with partners on The Electric Seaway project to install a rapid charger in Salcombe and Dartmouth.

### Why do we want to achieve this?

- Achieve air quality improvements.
- Carbon emission reductions to support the Council's climate emergency declaration aims.
- Resident and business engagement:
  - a. To understand likely demand for EV charging and their locations;
  - b. To gain support for infrastructure delivery;
  - c. Increase the uptake of fossil fuel transport alternatives through knowledge share (for example try before you buy schemes) and providing alternative options to car ownership.

# Aims and Actions



## Aim 1: Increase EV Chargepoints across the District

Availability of public charging points is an important issue, as range anxiety is the single most quoted reason why individuals will not yet buy an electric vehicle. Different speeds of charge points are available and chargers are divided into types, based on capacity:

- 'Slow' chargers are 3 kW (AC);
- 'Fast' chargers are 7kW to 22 kW (AC);
- 'Rapid' chargers are 50 kW but DC in nature;
- 'Ultra rapid' chargers are 150 – 350 kW and again DC in nature.

At home, many people will either make use of a 3pin plug (3 kW) or have a chargepoint installed outside, usually at a rate of 7kW. Fast chargers (7kW to 22kw) are often installed in car parks, Council owned ones and business car parks with some even installing rapid chargers. The type of charger installed is also dependent on grid capacity, many of the more remote areas of the district are grid constrained, meaning there is little capacity to install banks of fast and rapid chargers without an upgrade to a nearby substation.

To make the best use of resource, the Council will seek to unlock opportunities to provide charging points for those who are not catered for elsewhere or lack sufficient off street home charging. This would mean ignoring the motorway / trunk road network and workplaces. We will also focus on the Councils' own needs (for our own vehicles), which will need adequate charging availability around the most remote areas of the District. Innovative solutions are emerging for those areas with little off street parking, retractable charge stations are now available to reduce street clutter and provide places to charge vehicles on street.

We will also be using our own capability to install public EV chargers which will be owned and operated by SHDC, this will enable us to have more control over local pricing, structure and access.





Emerging and continually evolving technology, like those above, are why this strategy has a two-year time horizon, covering 2023–25. We will make sure we keep our attention directed towards emerging technology and solutions to EV charging to provide the best possible strategic direction for EV charging over the next few years.

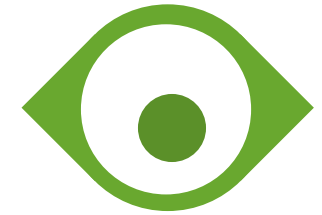
The Council only has so much land available and often has to balance the need to secure parking income whilst providing charging infrastructure to visitors. To maximise opportunity, South Hams’ communities and Parish Councils play a key role in identifying local EV charging needs and could help expand the community charging network by installing chargepoints on community spaces such as village halls and parking areas. We already have a baseline of sites following a survey carried out in December

2021, which ran until February 2022. The purpose of this survey was to find out which Town and Parish Councils were interested in hosting chargepoints and whether they had suitable land or buildings.

To achieve a suitable number of chargepoints, it’s crucial that we engage with neighbouring local authorities, Town and Parish Councils, landowners, local chargepoint stakeholders, and commercial network operators.

## Action Plan

Action Ref	Action	Partners	Resources	When
EV.1	Support a bid to the LEVI Scheme with Devon County Council and also explore sites where SHDC can own and operate EV chargers on its assets.	OLEV, DCC	Existing internal resource	2024/25
EV.2	Promote and support community charge sharing scheme such as Zap–Home and CoCharge.	Zap–home, CoCharge, Town and Parish Councils	Existing Internal Resource	2023–2025
EV.3	For existing workplaces, promote the OLEV Workplace Charging Scheme.	LEP, DCE,	Existing Internal Resource	2023–2025
EV.4	Carry out feasibility of EV chargers at locations in SHDC ownership (currently 27 location are in consideration).	DCC, OLEV, National Grid	Funded through DELLETTI and ORCS and internal resource	2024/25
EV.5	Encourage stakeholders to deliver EV chargepoints at other key destinations including supermarkets and rail stations.		Existing Internal Resource	2023–2025



## Aim 2: Increase the visibility of EV uptake and lead by example

The Council currently operate a fleet of 67 vehicles, which are primarily used by Mobile Locality Officers and Grounds Maintenance personnel. Use of these vehicles accounts for 12% of the Council's overall operational carbon emissions.

Our vehicles include cars, vans, cranes, tippers, tractors and ride-on mowers. This fleet transition will be dependent on the availability of public chargers for fleet staff, however we will explore alternative options for fleet chargers through solutions such as [Paua](#) and [CoCharge](#).

We will also be undertaking a strategic installation of EV chargers across our estate to include:

- Totnes Depot – 6 x 22kW and 1 rapid charger by the end of 2023;
- Dartmouth – 6 x 7.4 kW installed;
- Follaton House – increasing EV charging for staff and tenants.

Alongside the availability of public charging points many people simply are unaware of how EVs operate or cannot afford to finance the cost of the vehicle when the used combustion engine vehicle market remains buoyant and affordable, which will only increase as more people begin to sell petrol and diesel cars to buy EVs.

Even as the EV market increases and costs decrease, these vehicles will still be costly for those on lower incomes. It's here where an available and affordable EV sharing scheme can help, to increase mobility, bring costs down and clean up our transport emissions across the District.

## Action Plan

Action Ref	Action	Partners	Resources	When
EV.6	Complete Fleet Review to identify ICE to BE vehicle replacement schedule and costs. Analysis of existing vehicle routing and usage using teletrac software already underway.	National Grid, Energy Saving Trust		March 2024
EV.7	Install 10 chargepoints at key council locations to facilitate fleet transition.	National Grid, Charge providers (TBA)	Internal resource seconded for feasibility, electrical, installation and management and maintainence	2025
EV.8	Explore additional local incentives to increase EV uptake beyond additional chargepoint infrastructure, such as car sharing clubs (explore car share as part of pool car provision).		Internal Resource	2024-2025
EV.9	Explore e-bike trial opportunities across the District	DCC, e-bike providers	Shared Prosperity Fund	2024



### Aim 3: Support the push for electrically propelled watercraft

South Hams is home to three popular harbours at Salcombe, Dartmouth, Newton Ferrers and Noss Mayo.

Many visitors to South Hams' harbours who arrive by boat use tenders to approach the foreshore. These are often powered by petrol and diesel outboard motors.

We are keen to lead by example by decarbonising our own watercraft and by supporting residents, and visiting boat owners, in making the switch to electric. South Hams is already working to develop a charging infrastructure. We are currently working with partners on The Electric Seaway project to install rapid chargepoints in Salcombe and Dartmouth.

We are also keen to extend charging infrastructure to remote pontoon locations in Salcombe Harbour that are currently off-grid.

Electric boat charging is already starting to appear locally, Queen Anne's Battery in Plymouth is now home to a 75kw chargepoint with another 24kw chargepoint at the Barbican Landing Stage.

South Hams District Council has recently funded an electric marine propulsion project through the Climate Engagement Fund which was launched in early 2022. The project has seen demonstrations of electric outboard motors and workshops held in spring 2023 with more due in 2024. The outcomes of this project will be key to helping leisure users understand the benefits and ease of switching to electric propulsion for small craft.



## Action Plan

Action Ref	Action	Partners	Resources	When
EWV.1	Investigate sites and renewable energy solutions to provide power to off-grid pontoon, engage with harbour authorities and marine sector partners.	Salcombe Harbour Authority, Yealm Harbour Master, RYA and third party landowners	Internal resources, capital fund required	Rolling programme – 2024/25
EWV.2	Decarbonise the Lower Dart Ferry and Salcombe Water Taxi services.		Internal resources, capital fund required	Rolling programme – 2024 – 2032
EWV.3	Support marine sector specialists engaging with businesses to help them transition to more energy-efficient activities and processes as part of a shift to decarbonisation. This includes the SHDC funded e-transition workshop project, which ran its first event in May 2023. As well as support offered to businesses to test new technologies and processes.	Blue Environment, Plymouth City Council, Harbour Authorities	Climate Engagement Fund	Rolling programme – 2023/2024

# Delivery

Historically, the Council has jointly procured EV charging with partner authorities such as Devon County Council. Alongside this, the Council will seek opportunities to deliver its own charging infrastructure, it's important to highlight the different delivery models.

Delivery Model	Advantages	Disadvantages
<p><b>South Hams' network ownership</b></p> <p>This 'own and operate' model is an approach in which the Council appoints a supplier to install and manage chargepoints on Council-owned land for the contract period and fully funds the installations, typically using grant funding and local authority capital.</p>	<ul style="list-style-type: none"> <li>● Retains full ownership of the charging infrastructure</li> <li>● Retains revenue</li> <li>● Able to select sites regardless of viability</li> <li>● Full flexibility of back office function such as tariffs and rates</li> </ul>	<ul style="list-style-type: none"> <li>● Cover costs of ongoing operation, maintenance and upgrade</li> <li>● Risk of equipment becoming outdated and left with obsolete charging</li> <li>● Reputational risk associated with unreliability</li> </ul>
<p><b>Public / private concessionary model</b></p> <p>This is a model where the charging is part funded by the public sector but a private sector operators runs and maintains the charge points. i.e. DELETTI.</p>	<ul style="list-style-type: none"> <li>● Potential for income share or land leasing revenue</li> <li>● Reduced reputational risk associated with unreliability</li> <li>● Local authority has no responsibility or costs associated with maintenance and repair</li> <li>● Potential for charging type upgrades in the future as part of an agreement</li> <li>● no control over delivery timescales</li> </ul>	<ul style="list-style-type: none"> <li>● Reduced income vs full ownership</li> <li>● Not all chargepoint operators are amenable to the terms, reducing the choice of suppliers</li> <li>● Lengthy tender exercise</li> <li>● Private operator will likely require large number of sites to make installation viable</li> <li>● Burden of contractual disputes</li> </ul>
<p><b>Private operator</b></p> <p>Full ownership and responsibility from a private operator.</p>	<ul style="list-style-type: none"> <li>● Lowest risk across all issues highlighted above</li> <li>● If on public sector land, potential for long term rental income</li> </ul>	<ul style="list-style-type: none"> <li>● Many of our rural sites will likely be not viable for a private operator</li> <li>● Least control, difficult to achieve ambition and vision for far reaching and equitable charging infrastructure</li> </ul>



Based on the advantages and disadvantages of the different models, and from existing experience, the concessionary model, with a private sector delivery partner provides a good balance of risk and control. However there is a need to make sure that the network operator fulfils their service level obligations to maintain a reliable network and provide a customer focussed support function as set out in any framework.

Following learning from our existing partnership schemes, we have also developed skills internally and will therefore consider all options for EV charging delivery across the district.

## How will success be monitored and any lessons learned implemented?

Over the course of the strategies life, we will measure the following:

- Monitor charge point use and other market trends to inform future provision of fast and rapid charge points;
- Monitor EV take up;
- No of charge points delivered each year.

# Glossary

Term	Explanation
<b>Battery electric vehicle (BEV)</b>	A vehicle powered by a battery, which can be plugged into an electricity source to recharge. Also known as 'pure' or '100 per cent' EVs, they have zero tailpipe emissions.
<b>Chargepoint</b>	A charging socket which is connected to an electric vehicle via a charging cable to allow the battery to be recharged with electricity.
<b>Chargepoint Network</b>	The way that users access a chargepoint via RFID card or web or app.
<b>DELETTI</b>	Devon Low carbon Energy and Transport Technology Innovator.
<b>eBike</b>	An electrically assisted pedal cycle. The maximum power output of 250 watts should not be able to propel the bike when it is travelling more than 15.5mph. In the UK you must be over 14 years old to ride an e bike.
<b>eCargo bike</b>	An electrically assisted pedal cycle featuring a minimum 125 litre cargo volume capacity and minimum 130 kg weight capacity.
<b>EV</b>	Electric Vehicle; the vehicle is powered by electricity so requires plugging in to recharge the battery.
<b>ICE</b>	Internal combustion Engine.
<b>kWh</b>	Kilowatt Hour; unit of electricity. Car batteries are sized in kWh i.e. a 50 kWh battery stores 50 kWh of electricity.

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<b>LEVI</b>	Local Electric Vehicle Infrastructure.
<b>p/kWh</b>	Pence per Kilowatt Hour. Users are charged for each kWh they consume. Charging tariffs are in pence per kilowatt Hour.
<b>Payment by bank card</b>	In line with national regulations, all new Rapid and Ultra Rapid chargers will accept payment via a contactless bank card (credit or debit card). This allows users to access these chargers without joining a Network.
<b>PHEV</b>	Plugin Hybrid Electric vehicle; combines a smaller battery with a conventional internal combustion engine and an electric motor. This allows an electric range of between 20 – 50 miles and the ability to drive with an empty battery for hundreds of miles using petrol or diesel.
<b>Pool car</b>	A vehicle that is made available to staff to book for business travel.
<b>ORCS</b>	On-street Residential Chargepoint Scheme.
<b>Overstay fee</b>	To encourage appropriate use of charging bays and assure they are available for people who need them an overstay fee will apply after a vehicle has finished charging and grace period has been exceeded.
<b>OZEV</b>	Office for Zero Emission Vehicles.
<b>WSP</b>	Williams Sale Partnership, lead consultants for the Devon County Council EV Strategy







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