

Draft Electric Vehicle Charging Strategy 2021-23

01 July 2021



Dorset
Council

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1. Introduction

Context

The transport sector, due to its dependency on fossil fuels, is a major contributor to society's carbon footprint¹, and affects air quality and public health. In 2018 transport in Dorset was responsible for 40 percent of CO₂ emissions, an estimated 655 kilotons of CO₂e². Decarbonising the transport sector³ will be a key challenge in moving towards a zero-carbon future.

Reducing car travel and achieving modal shift in favour of public transport and active travel will have a significant role in addressing these impacts. However, for certain activities and particularly in rural areas of Dorset with limited public transport provision, cars and vans are the most suitable means of transport. Replacing existing petrol or diesel vehicles with electric vehicles (EVs) is therefore a key part of Dorset Council's Climate and Ecological Emergency Strategy to help achieve our climate change and air quality goals.

The UK Government has introduced a ban on the sale of new petrol and diesel cars and vans from 2030. The ban will speed up the transition to EVs. By 2030 it is estimated that EVs could account for up to 30 percent⁴ of all cars and vans in the UK (approximately 91,000 vehicles within the Dorset Council area).

Charging infrastructure is essential to encourage EV ownership. In Dorset there are currently 90 public electric vehicle chargepoints or 23.8 per 100,000 population⁵. To meet growing chargepoint demand it is forecast that between 233 to 502 public chargepoints will be needed by 2023 to meet demand from residents, businesses, and visitors⁶.

By adopting this Electric Vehicle Charging Strategy, Dorset Council is demonstrating a commitment to promote the uptake and deployment of EVs. This document sets out a vision, the Council's planned approach in the form of an action plan, and how the Council will use data to monitor the impact of the strategy.

A two-year time horizon has been set for this EV strategy, covering 2021-23. This short time horizon allows the strategy to focus on what is currently known, 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 2023.

¹ Dorset Council Climate and Ecological Emergency Strategy - Transport

² Department for Business, Energy & Industrial Strategy. 2020. UK local authority and regional carbon dioxide emissions national statistics: 2005 to 2017.

³ Department for Transport. 2020. Transport Decarbonisation Plan.

⁴ Energy Savings Trust. April 2020. Incorporating EV chargepoints into local planning policies for new developments report.

⁵ DfT, January 2021. Electric Vehicle Charging Device Statistics.

⁶ Distribution Future Energy Scenarios (DFES) 2020 data supplied by SSEN and WPD for the Dorset Council area. Public chargepoint definition includes car park, destination, en-route local, en-route national, and residential on-street charger types only.

Scope of this strategy

This electric vehicle strategy covers the following:

EV1 - Destination charging

Publicly accessible off-street chargepoints in destinations. This includes public car parks, retail, leisure, and tourist attractions. Destination chargepoints provide top up charging opportunities and address range anxiety concerns.

EV2 - Residential charging

Chargepoints located at or near EV owners' homes (There may overlap with destination charging). These serve residents primarily for overnight charging and are important for residents that lack private off-street parking at home. Chargepoints could be situated on-street or in off-street locations depending on the setting and local constraints. Community charging also falls into this category.

EV3 - Charging hubs

Hub-based charging (a group of chargepoints) at a central location in or out-of-town. Sufficient grid capacity must be available to accommodate high powered charging. Power can also be generated on-site from renewable sources.

EV4 - Charging at Dorset Council sites

Chargepoints installed in depots and at Council offices to enable electrification of the Council operational and pool fleet. Sufficient grid capacity must be available to accommodate high powered charging.

EV5 - Workplace charging

Chargepoints installed at workplaces within private car parks for use by a company's employees and fleet vehicles. Workplaces could also provide community charging facilities if the chargepoint is made publicly accessible.

EV6 - Development policies

The application of planning requirements on new developments to ensure planning applications fully provide for future uptake of EVs.

EV7 - Bus and taxi charging

Charging infrastructure that meets the requirements of future electric bus and taxi fleets. Sufficient grid capacity must be available to accommodate high powered charging.

EV8 - Renewable energy generation and supply for electric vehicle charging

The generation of renewable energy to supply electric vehicle charging infrastructure. Renewable energy could either be generated on-site co-located with charging infrastructure or be generated off-site.

Not within the scope of this strategy are:

- **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. Dorset Council has limited powers to influence the rail sector and its adoption of zero emission vehicle technology.
- **Freight transport** – 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.
- **Charging for car clubs** – There is no active car club scheme within the Dorset Council area. Requests for chargepoints from new car clubs looking to set up in the area will be considered on individual merit and within the context of the priorities set out within this strategy.
- **eBikes and eCargo bikes** – eBike batteries can be removed and are charged using a standard 3 pin plug. Therefore no dedicated charging infrastructure is required.
- **Hydrogen power solutions** – The technology and vehicle availability of hydrogen powered solutions is not at a mature enough stage to be considered as part of this strategy.
- **En route charging** along the strategic road network managed by Highways England.

These out of scope areas will be monitored and reassessed for inclusion in future strategies.

2. Where we want to be

Vision

Our vision is to create a reliable and accessible charging infrastructure for residents, businesses and visitors that helps Dorset become carbon neutral by 2050.

By implementing this strategy Dorset Council will:

Lead



- Lead by example by switching the Dorset Council fleet of operational vehicles and pool cars to EVs, and by supporting employees to switch to EVs for business travel
- Lead by taking action in areas which the Council directly control
- Lead on securing funding and generating revenue
- Lead on keeping residents, businesses and visitors engaged and consulted on future measures

Enable



- Enable the expansion of a reliable and accessible public chargepoint network that complements commercial networks
- Enable residents without off-street parking to access public chargepoints
- Enable, through planning policy, new developments to install active or passive charging infrastructure
- Enable, through planning policy, businesses to install chargepoints at workplaces

Explore



- Explore opportunities to encourage operators to convert bus fleets to EVs
- Explore opportunities to encourage taxi operators to switch to EVs
- Explore innovative, agile approaches
- Explore opportunities to generate electricity from 100% renewable sources

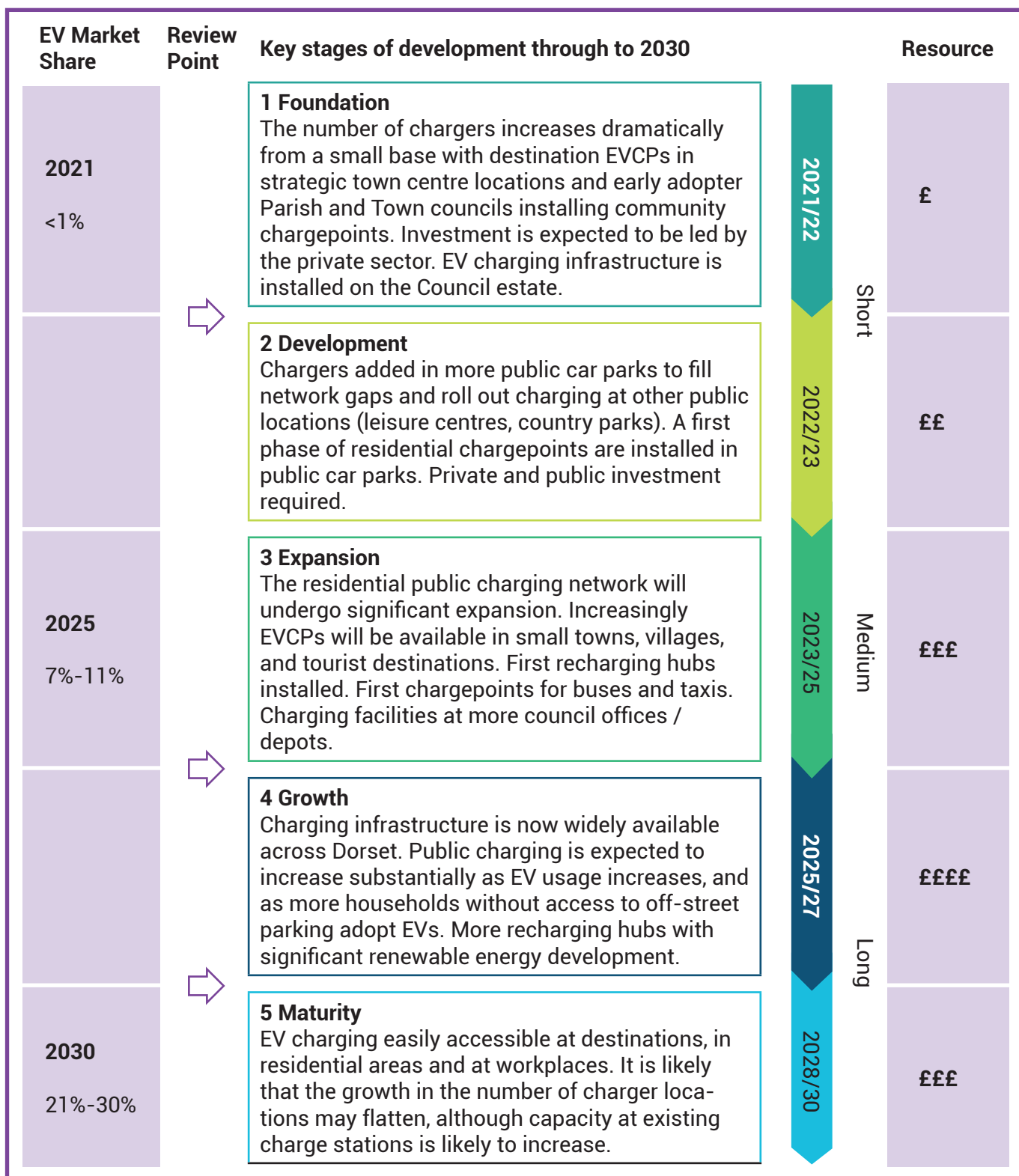
Partner



- Work closely with the private sector
- Work with town and parish councils and other public sector organisations
- Coordinate with other commercial and public network operators
- Work with renewable energy organisations

Figure 2.1 presents a summary of the major stages of development up to 2030. This shows the longer term planning required to meet growing charging infrastructure needs and meet decarbonisation goals.

Figure 2.1 – Key stages of development through to 2030



Links to other Strategies and Plans

How this relates to the Transport Decarbonisation plan

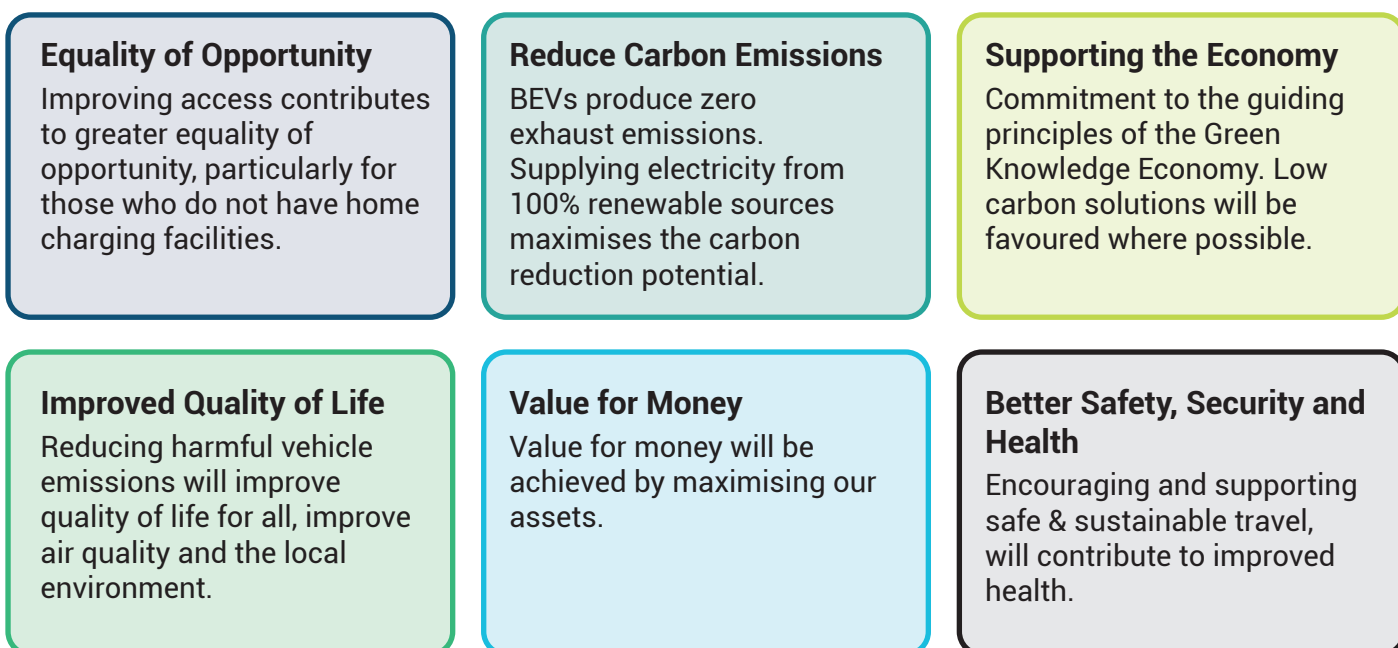
The Government is currently developing a plan to decarbonise transport. The Transport Decarbonisation Plan (TDP) will set out in detail how to deliver the significant emissions reduction needed across all modes of transport to achieve net zero emissions from transport by 2050. The Government is expected to publish the final TDP in spring 2021. The Setting the Challenge 2020 report identifies the decarbonisation of road vehicles as one of six strategic priorities:



How this contributes to Local Transport Plan goals

The Local Transport Plan (LTP) vision for Dorset is a safe, reliable, and accessible low carbon transport system that assists in the development of a strong low carbon economy, maximises the opportunities for sustainable transport and respects and protects the area's unique environmental assets (Bournemouth, Poole, and Dorset Local Transport Plan 2011 to 2026). Figure 2.1 demonstrates how this Strategy will make a significant contribution to meeting the LTP goals. The LTP is currently being refreshed and an updated plan will be published in 2022.

Figure 2.1 - Contribution to LTP Goals



How this relates to the Transport Decarbonisation plan

The Climate and Ecological Emergency Strategy lists these areas for action that align directly with this strategy.

Direct

- Maximise ultra-low-carbon vehicle replacement within Council fleet
- Provide EV charging points & other ultra-low-emission fuel alternatives across the Council property estate
- Understand key risks and potential costs posed by climate change
- Mainstream climate resilience in future strategies and policies

Indirect (through services)

- Improve low-carbon transport infrastructure by embedding it in the Local Plan and Local Transport Plan
- Encourage decarbonisation of road transport through development of EV charging network & promotion of low emissions transport vehicles

Other Links

The EV strategy is one of several **LTP supporting strategies**. It is aligned with the LTP objectives and has strong synergies with:

- **Low Carbon Travel Strategy**
- **Health Strategy**
- **Freight Strategy**
- **Passenger Transport Strategy**

3. How we will get there

Strategy approach

The EV strategy is focussed on delivery between 2021 – 2023. It is based upon the best available evidence on the current EV market at the time of production, and forecasts for how the market will develop over the period covered by the strategy.

The strategy acknowledges that the EV sector is still in its infancy and will undergo significant changes over the coming years. The Council will adopt an agile approach to respond quickly to technological, market and socio-economic changes. The Council will also identify and adopt innovative approaches to ensure that delivery is effective, and the infrastructure meets the needs of Dorset's residents, businesses, and visitors.

EV1 - Destination charging

Priorities for 2021-23

- To increase the destination charging network coverage so no settlement in Dorset is more than five miles from a Council sponsored public EV chargepoint.
- To install at least 100 additional Council sponsored destination chargepoints.

Opportunities

- Dorset Council owns and manages public car parks, leisure centres and country parks. These can provide ideal locations for fast charging and the strategic positioning of rapid chargepoints to support local community, visitor, and en route charging.
- The Council is well placed to consider the location, type, and number of chargepoints in the context of current and future development plans.
- Network operators may fund destination chargepoints in locations where they can expect a return on investment. Working closely with operators the Council can maximise private investment while ensuring that provision matches the needs of residents, businesses, and visitors.
- Several private businesses in Dorset have already commissioned chargepoints in their car parks. The Council is supportive of commercial networks and welcomes their expansion in Dorset as this supports consumer choice, wider geographic spread, and faster rollout rates.

Key stakeholder groups

SSEN; Western Power; Network operators; Town and Parish councils; Neighbouring local authorities; Landowners; Business Improvement Districts, Chamber of Commerce; Tourism Association.

By implementing this strategy, the Council will:

- EV1.1 Enable a phased roll-out of destination chargepoints. Locations will be selected to meet current and future demand from residents, businesses, and visitors, fill in gaps in the charging network, and have good access from the strategic road network. Individual sites will be subject to a feasibility study including an assessment of local grid capacity. The initial phases to commence in 2021-22 will include:

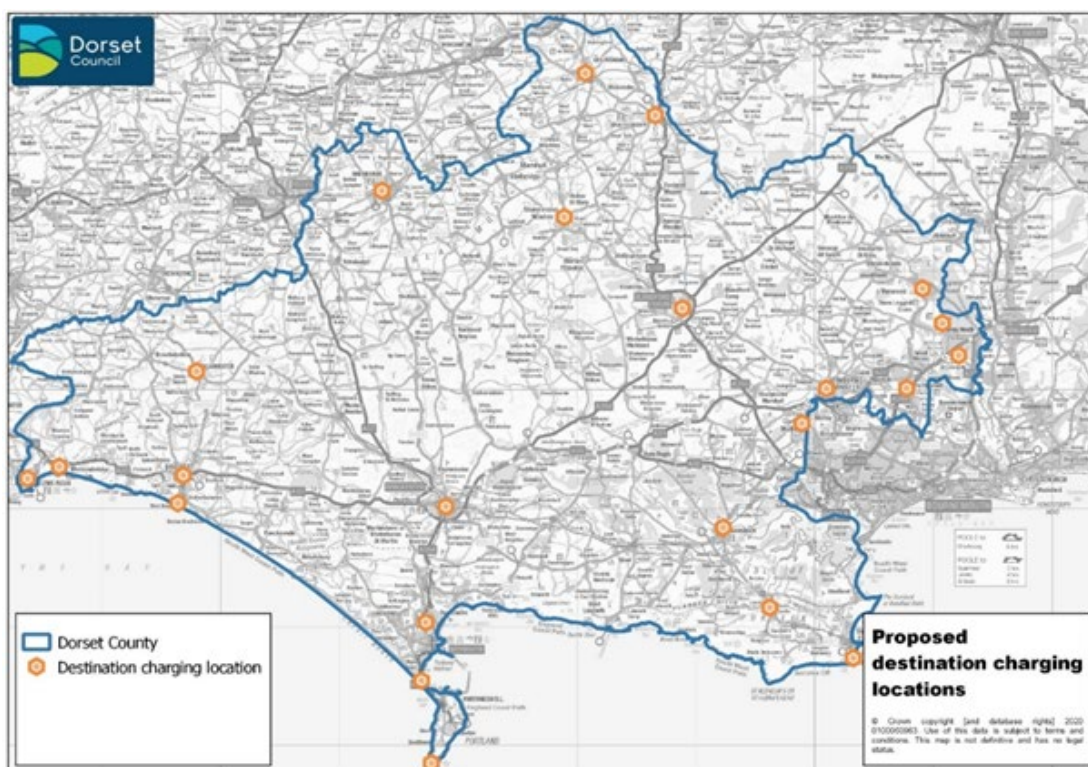
Phase one - installation of more than 40 fast chargepoints in town centre public car parks. Renewal of the existing chargepoint infrastructure, including five rapid chargepoints, to improve reliability at popular charging locations.

Phase two - installation of more than 40 fast chargepoints in public car parks and at other public locations including at country parks, leisure centres and tourist destinations.

- EV1.2 Monitor chargepoint use and other market trends to inform future provision of fast and rapid chargepoints.

- EV1.3 Publish an online map on Dorset Explorer of planned future chargepoint locations.

Map 3.1 – Proposed destination chargepoint locations



EV1.4 Match the power output of the chargepoints to suit average dwell times⁷ so that the right type of charger is available at the right location. Table 3.1 provides a guide to which chargepoint types will be deployed where.

Type	Capacity (kW)	Charge time ⁸	Dwell Time	Suitable at
Slow	3 – 7	16 hours	7 hours plus	Residential
Fast	7 – 22	2-7 hours	1-7 hours	Destinations, charging hubs or workplaces
Rapid / Ultra Rapid	50+	Up to 1 hour	Less than 1 hour	Destinations, charging hubs, taxi ranks, en route charging, and use by fleet/commercial vehicles

EV1.5 Contract a chargepoint supplier to install, maintain and operate the Council's destination charging network under the terms of the Central Southern Region (CSR) EV Framework. The Council will work closely with the operator to select charging locations to deliver a network across Dorset that is viable and accessible to all. The CSR Framework offer will be periodically reviewed to ensure that it still represents good value for the authority.

EV1.6 Ensure 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 the CSR Framework agreement. Dorset Council will work with the operator to investigate complaints about the network and respond to problems.

EV1.7 Share experience and knowledge with other public bodies to help them expand the public

⁷ Dwell time – the length of time spent at a vehicle chargepoint. Dwell time = charge time + non-charging parking time in an EV charging bay.

⁸ From empty to 80% charge of a 60kWh battery.

charging network. Dorset's town 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.

- EV1.8 Engage with neighbouring local authorities, landowners, other local chargepoint stakeholders, and commercial network operators to ensure coordination of chargepoint delivery. This approach will ensure that resources are maximised and the networks that develop are complementary to one another.
- EV1.9 Maximise private sector investment to deliver chargepoint infrastructure. A licence model minimises the financial risk to Dorset Council with the supplier and their funding partner having responsibility for maintenance charges and replacement/upgrade costs. As set out within the CSR framework terms, in return Dorset Council receive a 10% share of the kWh supply price for the next 15 years.
- EV1.10 Secure capital funding to enable Dorset Council to fund chargepoints partially (concession model) or fully (external supply and maintenance model) in locations less attractive to the private sector. This will ensure a wider spread of chargepoints to encourage EV ownership in smaller towns and rural areas. The Council will monitor government programmes and other sources of funding and submit bids to eligible funding programmes.
- EV1.11 Ensure that all charging bays meet all equalities legislative requirements and access for disabled people.
- EV1.12 Enforce parking regulations in line with local restrictions. Enforcement will ensure the use of parking bays are restricted to EV use and that EVs are connected and charging. Parking fees will continue to apply at the times stipulated at the car park.
- EV1.13 Commit to public chargepoints on Dorset Council owned land being supplied with electricity from green energy suppliers who produce 100% of their electricity from zero-carbon sources.

EV2 - Residential charging

Priorities for 2021-23

- Secure Office for Zero Emission Vehicle (OZEV) On-street Residential Chargepoint Scheme (ORCS) funding for residential chargepoints at a minimum of ten public locations with residential parking.
- Encourage community charging by signposting the services available from chargepoint sharing providers.

Opportunities

- An estimated one third of households in Dorset have no off-street parking⁹. Electric vehicle charging represents a challenge for these households. Whilst home charging maybe the cheapest and most convenient way to charge a vehicle for many, it is not the only solution with destination, community charging, workplace, and charging hubs offering potential alternatives.
- As the Local Highway Authority, Dorset Council has control over most public highways in the County. This includes roads and footways, except for the main strategic routes (A31 and A35) which are the responsibility of Highways England.
- The public can suggest a new location for a chargepoint by filling out a short e-form at: https://dorset-self.achieveservice.com/service/EV_charging_point.

⁹Citation - Analysis of the 2011 Census data shows that 62,770 households (Terraced houses, flat, maisonettes, and apartments) in Dorset may not have access to private at home off-street parking.

- The Office for Zero Emission Vehicles (OZEV) On-street Residential Chargepoint Scheme (ORCS) grant, administered by the Energy Savings Trust, provides funding for local authorities to install residential chargepoints. Funding of £20 million in 2021-22 is available to part fund (75%) the capital costs of EVCP procurement and installation up to £13,000¹⁰ per chargepoint. Chargepoints located off-street (for example, within public car parks) are also eligible for funding if it can be demonstrated they meet a local residential charging need.

Key stakeholder groups

Residents; Councillors; Town and Parish councils; SEN; Western Power; Network operators; Energy Savings Trust.

By implementing this strategy, the Council will:

- EV2.1 Enable a phased roll-out of destination chargepoints. Locations will be selected to meet current and future demand from residents, businesses, and visitors, fill in gaps in the charging network, and have good access from the strategic road network. Individual sites will be subject to a feasibility study including an assessment of local grid capacity. The initial phases to commence in 2021-22 will include:
- EV2.2 Consider all available residential charging options, with solutions designed to balance the needs of residents, businesses, and visitors, while keeping a safe and accessible network of footways, and minimising the amount of street furniture and clutter. This may include off-street and on-street charging infrastructure. Chargepoints will not be installed in locations where they would restrict footway access. Individual site surveys will be required to assess potential on-street locations.
- EV2.3 Undertake engagement with residential communities, including a survey, to understand their needs and determine which locations would be best suited for charging infrastructure. Engage with local members in locations where the potential location of chargepoints could be deemed unwelcome or controversial such as areas where parking is already at a premium.
- EV2.4 Submit an OZEV ORCS grant application to secure capital funding for residential chargepoints at a minimum of ten public locations with residential parking.
- EV2.5 Contract a chargepoint supplier to install, maintain and operate chargepoints in Council owned public car parks that are located within a 5 minute walk (400m) of a residential area with a high proportion of households without off-street parking. A concession delivery model is the preferred option as this shares risk and shifts the requirement to manage and maintain the chargepoints to the supplier. Chargepoints at these locations may be eligible for ORCS funding.
- EV2.6 Enforce Traffic Regulation Orders (TROs) to restrict petrol or diesel vehicles parking in EV charging bays and limit the length of stay for an EV. These offences will be enforced through Penalty Charge Notices (PCNs).
- EV2.7 Ensure all residential chargepoints, both off-street or on-street, will be public access. Chargepoints will not be considered personal to any individual or business.
- EV2.8 Commit to residential chargepoints on Dorset Council owned land being supplied with electricity from green energy suppliers who produce 100% of their electricity from zero-carbon sources.
- EV2.9 Encourage community charging by signposting the services available from chargepoint sharing providers. Sharing or renting out of home chargers by EV owners could significantly increase community access to chargepoints and remove the barriers to owning an EV in residential areas without off-street parking.
- EV2.10 Have a webpage on the Council website for residents to suggest locations for an electric vehicle charging point (go to https://dorset-self.achieveservice.com/service/EV_charging_point).

¹⁰ Funding above £7,500 will be limited only to cases where connection costs are particularly high and can be evidenced.

EV3 - Charging hubs

Priorities for 2021-23

Feasibility study to identify suitable site(s), define scope and develop business case

Opportunities

- Hub charging provides opportunities to meet the needs of a range of users including local communities, business fleet vehicles, visitors, long-distance travel, taxis, multi-modal transport users, freight, and logistics.
- Dorset Council is well placed to work with landowners, stakeholders, and operators. Effective delivery will be achieved through partnerships and collaboration across the public and private sector.
- Integrating renewable energy generation and energy storage provides opportunities to overcome electrical grid capacity issues.

Key stakeholder groups

SSEN; Western Power; Network operators; Landowners; Transport fleet operators

By implementing this strategy, the Council will:

- EV3.1 Commission a feasibility study to identify potential charging hub locations and develop a business case.
- EV3.2 En route charging hubs should be located on or close to the strategic highway network to minimise traffic diverting away from these key routes.
- EV3.3 Engage landowners, stakeholders, and network operators to identify delivery model(s) and the role of the Council. Licencing and concession delivery models will be considered.
- EV3.4 Explore opportunities to co-locate new service station, park and ride and charging hub facilities.
- EV3.5 Commit to public chargepoints on Dorset Council owned land being supplied with electricity from green energy suppliers who produce 100% of their electricity from zero-carbon sources. This will include maximising opportunities for on-site renewable energy generation and energy storage.

EV4 - Charging at Dorset Council sites

Priorities for 2021-23

Charging infrastructure located on the Council estate to enable the Council to begin converting its fleet to zero emission vehicles .

Opportunities

- The Council operates a large and diverse operational vehicle fleet. Large sections of Dorset Council's fleet could be replaced by electric vehicles.
- Current technology now makes the cost of smaller electric vehicles (cars and car derived vans) a viable replacement proposition with range and whole life costs comparable to petrol and diesel equivalents.
- The technology for larger and/or more specialised vehicles, is still developing, making the whole life costs for those vehicles a riskier financial proposition for the authority. For this reason, the strategy is to start small, replace vehicles in phases, and only replace large and or specialist vehicles when the technology is right, and whole life costs have fallen. The use of zero emission alternative fuels is also being explored to power the Council's large fleet vehicles.

Key stakeholder groups

SSEN; Western Power; Network operators; Internal Council services.

By implementing this strategy, the Council will:

- EV4.1 Carry out a feasibility study across the estate, in coordination with the Council's property team, to identify charging capacity and need.
- EV4.2 Secure capital funding from internal and external sources for EVCPs and select an appropriate delivery model upon completion of the feasibility study. Make OZEV home and workplace charging grant applications to support the capital investment of installing chargepoints. The delivery options being considered are: licence, concession or council funded external supply and maintenance contract.
- EV4.3 Install chargepoints in at least four depots and the main council offices at County Hall for use by the operational fleet. Approximately 12 chargepoints could support up to 50 cars and car derived vans within the operational fleet by 2023.
- EV4.4 Install chargepoints at County Hall for pool EVs if and when the pool fleet is expanded.
- EV4.5 Install home charging infrastructure for standby vehicles as they are replaced by EVs. Installing home chargepoints at employees' homes have been trialled by other local authorities and shown to be an effective approach for meeting fleet charging needs.
- EV4.6 Aim to use electricity supplied from green energy suppliers who produce 100% of their electricity from zero-carbon sources. This will include maximising opportunities for on-site renewable energy generation and energy storage.

EV5 - Workplace charging

Priorities for 2021-23

Encourage businesses to install workplace chargepoints for fleet charging, staff use and community charging.

Opportunities

- Workplaces offer an alternative charging location for people that lack off-street car parking at home.
- Workplace charging can support fleet vehicle electrification.
- Business networks such as the Business Travel Network, Dorset Chamber of Commerce and Dorset Tourism Association engage businesses on a range of issues and are therefore well placed to encourage workplaces to install chargepoints.
- Energy Savings Trust provides independent advice to help businesses reduce transport emissions and adopt electric vehicles.
- Workplace charging can support fleet vehicle electrification.
- Business networks such as the Business Travel Network, Dorset Chamber of Commerce and Dorset Tourism Association engage businesses on a range of issues and are therefore well placed to encourage workplaces to install chargepoints.
- Energy Savings Trust provides independent advice to help businesses reduce transport emissions and adopt electric vehicles.

Key stakeholder groups

BTN; Dorset Chamber of Commerce; Business Improvement Districts; Visit Dorset; Dorset Tourism Association.

By implementing this strategy, the Council will:

- EV5.1 Support business networks to host workshops targeting businesses looking to install chargepoints, convert their fleet to EVs, and encourage their staff to use EVs for personal use.
- EV5.2 Support business networks to signpost relevant workplace EV funding opportunities.
- EV5.3 Support business networks to signpost information sources that enable businesses to develop their business case to invest in EV infrastructure.
- EV5.4 Encourage businesses to make their chargepoints available for community charging. This would help people who are not able to charge at home transition to electric cars and could greatly increase the availability of chargepoints across Dorset.

EV6 - Development policies

Priorities for 2021-23

- Adopt EV charging standards within the new Dorset Local plan.
- Adopt refreshed Local Transport Plan (LTP).

Opportunities

- A refreshed joint LTP will be adopted in 2022 and provides opportunity to strengthen existing commitments to support and encourage low carbon travel opportunities.

Key stakeholder groups

Councillors; Town and Parish Councils; Internal council services.

By implementing this strategy, the Council will:

- EV6.1 Adopt an EV policy within the new local plan for new developments which sets out standards for chargepoint provision. Development proposals which include parking facilities or which will be likely to generate vehicle movements or vehicle ownership will be expected to integrate the provision of infrastructure to enable the charging of electric vehicles into the design and layout of the development.
- EV6.2 Strengthen policies within the refreshed Local Transport Plan that support the decarbonisation of the transport sector, alongside mode shift and behaviour change initiatives.

EV7 - Bus and taxi charging

Priorities for 2021-23

- Identify charging infrastructure needs of the bus and taxi sectors operating within the Dorset Council area.

Opportunities

- The Bus Strategy for England includes a plan to transition to zero emission buses as part of a £3 billion investment aimed at transforming bus services. The Government has committed to support delivery of over 4,000 zero emission buses. In 2020/21 the Government provided £50 million to deliver the first All Electric Bus Town and announced £120 million for zero emission buses in 2021/22. The Government has also launched the Zero Emission Bus Regional Area (ZEBRA) scheme.

- The Dorset Passenger Transport Strategy is an LTP supporting strategy and sets out the council's vision for a safe, reliable, affordable, and sustainable passenger transport network. It identifies supporting greater use of low emission vehicles as a strategic goal. The strategy will be updated in 2021 as part of the LTP refresh.
- OZEV has provided two rounds of funding under the Ultra-Low Emission Taxi Infrastructure Scheme. The last round of grants were issued in January 2019, totalling £20 million.
- Dorset Council is the licensing authority for taxi vehicles and drivers. The licensing conditions that are applied to taxi operators, drivers and vehicles are set out in the Dorset Council taxi policy. The policy will be refreshed in 2021.

Key stakeholder groups

Taxi operators; Bus and coach operators; SSEN; Western Power.

By implementing this strategy, the Council will:

- EV7.1 Engage with the bus and taxi sectors to understand how the Council can support the transition to electric vehicles. The Energy Savings Trust will support the council to engage with taxi drivers in the form of a survey and engagement materials.
- EV7.2 Investigate potential locations for bus recharging hubs.
- EV7.3 Consider the location of destination chargepoints (see EV1) and charging hubs (see EV3) within close proximity to key taxi ranks and drivers' break locations.

EV8 - Renewable energy generation and supply for electric vehicle charging

Priorities for 2021-23

All chargepoints on Dorset Council owned land and chargepoints installed on the Dorset Council estate to be supplied with electricity from green energy suppliers who produce 100% of their electricity from zero-carbon sources.

Opportunities

- Dorset Council owns a large property portfolio. There are opportunities to generate renewable energy from these assets co-located at the site of the chargepoints, or at sites located elsewhere. The generation of renewable electricity on-site co-located with chargepoints offers an opportunity to reduce the impact of grid capacity constraints.
- Several chargepoint network operators guarantee to buy 100% renewable energy.

Key stakeholder groups

SSEN; Western Power.

By implementing this strategy, the Council will:

- EV8.1 Insist on all chargepoints on Dorset Council owned land to be supplied with electricity from green energy suppliers who produce 100% of their electricity from zero-carbon sources. The Council will stipulate that all chargepoints should be supplied with electricity from renewable sources as a requirement when engaging with any chargepoint operator.
- EV8.2 Maximise opportunities to produce renewable energy on Dorset Council owned land and the council estate. Conduct a feasibility study and develop a business case for locating renewable energy generating facilities on Dorset Council owned land to supply EV chargepoints.

Action Plan

Our action plan sets out the measures the Council will undertake within this strategy period between 2021-23.

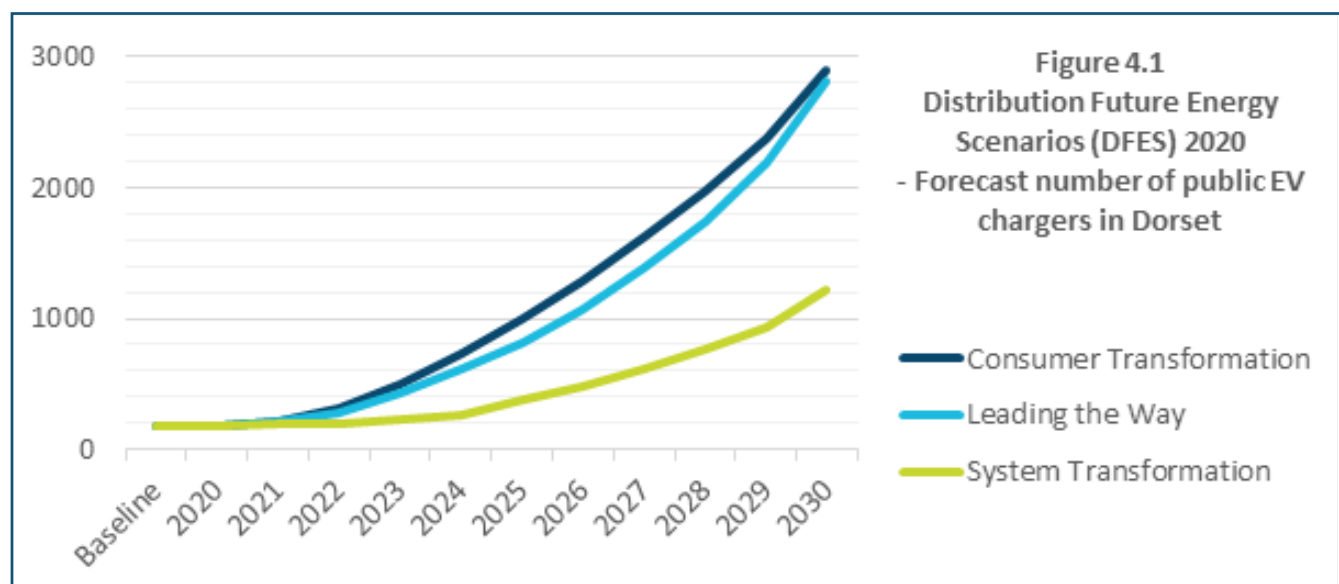
ID	Action	Measure (KPI ID)	Delivery period
EV1	Destination Charging		
1.1	Phase 1 - Installation of more than 40 fast chargepoints in public car parks and replacement of 5 rapid chargepoints.	1, 2, 3	Jan - May 2021
1.2	Phase 2 - More than 40 additional fast chargepoints in public car parks, country parks, leisure centres and tourist destinations.	1, 2, 3	Rolling programme commencing Q3 2021
EV2	Residential Charging		
2.1	Submit an OZEV ORCS grant application to fund chargepoints in up to ten new public locations	7	2021-22
2.2	Install at least 20 residential chargepoints in public locations	1, 2, 3	2021-22
2.3	Encourage community charging services to increase community access to chargepoints		Continuous
EV3	Charging Hubs		
3.1	Commission feasibility study		2021-22
EV4	Dorset Council estate charging		
4.1	Submit OZEV home grant applications for each home chargepoint installed	7	2021-23
4.2	Submit OZEV workplace grant application for each Council workplace chargepoint installed	7	2021-22
4.3	Install up to 12 chargepoints at various locations on the Council estate	1, 3	2021-22
EV5	Workplace charging		
5.1	Host workplace/fleet charging event(s)	6	2021-23
5.2	Encourage community charging services to increase community access to chargepoints		Continuous
EV6	Development policies		
6.1	Adopt local plan policy		2023
6.2	Adopt refreshed LTP		2022
EV7	Bus and taxi charging		
7.1	Adopt new Dorset taxi policy		2021
7.2	Conduct taxi EV survey	6	2021
7.3	Publish refreshed Passenger Transport Strategy / Bus Service Improvement Plan		2021
EV8	Sustainable energy generation		
8.1	Conduct feasibility study and develop a business case for developing renewable energy generating facilities to supply EV chargepoints.		2021-22

4. Key challenges we face

The scale of the challenge

Decarbonisation of the road transport sector will require internal combustion powered vehicles to be replaced with EVs. In 2019 within the Dorset Council area there were 258,144 cars and light goods vehicles registered. Currently less than one percent (1,673 vehicles)¹¹ are plug-in electric. By 2030 the number of EVs in Dorset could reach up to 30 percent (91,000 vehicles) of all cars and vans.

To meet growing demand it is forecast that significantly more chargepoints will be needed by 2030. Modelling data estimates that by 2030 Dorset could need between 1,200 to 2,900 public chargepoints to meet demand from residents, businesses, and visitors¹².



Tourism demand

The tourism industry is especially important to Dorset with an estimated 30 million visits¹³ (day visits and staying trips) contributing £1.8 billion to the local economy. The surge in demand for EV chargepoints in the summer poses a specific challenge. Data from Dorset Council's five rapid chargepoints show that demand grows at some sites by 25%-50% in July and August. To cater for this demand the number of chargepoints will need enough capacity to match peak demand levels experienced in the summer.

Significant investment is required

There are significant costs associated with installing and maintaining chargepoints. It will be necessary for the Council to invest in the provision of chargepoints in areas that do not meet the investment criteria of private network operators, particularly rural areas. The Council will need to fund this investment by securing capital grant funding and reinvesting chargepoint operating profits, as well as maximising private investment from commercial network operators.

¹¹The Department for Transport. 2020. Ultra low emission vehicle statistics at local authority level.

¹²Distribution Future Energy Scenarios (DFES) 2020 data supplied by SSEN and WPD for the Dorset Council area. Public chargepoint definition includes car park, destination, en-route local, en-route national, and residential on-street charger types only.

¹³Visit Dorset. 2020 - <https://www.visit-dorset.com/dbimgs/2019%20Infographic-The%20Economic%20Impact%20of%20Dorset's%20Visitor%20Economy%20P.pdf>

Long term travel behaviour and socio-economic change linked to Covid-19 pandemic

Dorset is grappling with the Covid-19 outbreak and the impact it is having on local services and communities. The long-term impact on transport services and demand is yet unknown, but the transport sector will need to continue to adapt to the ongoing situation for the near future. It is anticipated that there will be a sustained increase in home working and the role of the high street is expected to change following a significant move to online retail. Both changes could see significant shifts in travel behaviours and future EV chargepoint demand could be impacted.

Innovation

Within the next couple of years, the EV sector is expected to rapidly innovate as technologies develop and the market matures. Dorset Council will closely monitor these innovations and will adopt an agile approach in order that it can progress with delivery and take advantage of new innovations and opportunities as they arise.

This strategy identifies several unknown factors about how the EV sector will develop – things that could/will change, but at this stage it is not clear how. These include:

- How the carbon-based fuel retailer market will adapt – Fuel forecourts are strategically well located to meet local and long-distance charging needs. How the big fuel retailers adapt to the growth of the EV market and how this will impact the requirement for public chargepoints is unknown at this time but should become clearer through the period of this strategy and future strategies will be required to take account of this.
- Vehicle and battery technology improvements – The EV models coming to the market in 2021 are increasingly able to deliver a longer range (typically 200-300 miles) from larger capacity batteries and are capable of faster charging times. If this trend continues then the EVs of the future will not require charging as frequently and will be able to charge from empty in five to ten minutes with a compatible ultra-rapid chargepoint.
- Charging technologies - Chargepoints capable of charging at 350 kW are now in use in the UK. As the vehicle and battery technology develops it follows that there is demand for higher capacity chargepoints. There are also other technologies emerging that are currently at the prototype stage including wireless inductive charging, and charging highways. If these technologies come to market, then this could result in a significant shift away from conventional wired chargepoints.

5. Monitoring our progress

Key performance indicators (KPIs) have been set to monitor progress towards the vision set out within this strategy. This strategy is evidence driven, using data to drive and monitor change. The KPIs will be reviewed annually to measure progress and to also ensure they remain fit for purpose.

ID	Indicator	Measure	Actions	Source
1.	Number of chargepoints	<ul style="list-style-type: none"> - Total public charging devices - Public charging devices per 100,000 population - Annual number of chargepoints installed by Dorset Council by type 	<ul style="list-style-type: none"> EV1.1 EV2.2 EV2.3 EV4.1 EV4.2 	DfT Statistics Table EVCD01. Record of Council installations.
2.	Geographical coverage of chargepoint network	<ul style="list-style-type: none"> - % of settlements with public chargepoints 	<ul style="list-style-type: none"> EV1.1 EV2.2 EV2.3 	GIS analysis
3.	Chargepoint use	<ul style="list-style-type: none"> - kWh of electricity drawn - % chargepoint utilisation - Number of public charging events 	<ul style="list-style-type: none"> EV1.1 EV2.2 EV2.3 EV4.1 EV4.2 	Back office data reports
4.	Chargepoint network reliability	<ul style="list-style-type: none"> - % chargepoint uptime 	<ul style="list-style-type: none"> EV1.1 EV2.2 EV2.3 EV4.1 EV4.2 	Back office data report, maintenance logs
5	Customer satisfaction	<ul style="list-style-type: none"> - % overall very satisfied or satisfied with public network 	<ul style="list-style-type: none"> EV1.1 EV2.2 EV2.3 	Annual survey Engagement with driver forums Complaints log
6.	Community engagement	<ul style="list-style-type: none"> - Number of engagement activities - Number of individuals, businesses, groups engaged 	<ul style="list-style-type: none"> EV1.5 EV2.4 EV3.3 EV7.1 	Engagement logs Webpage analytics
7.	Capital funding secured	<ul style="list-style-type: none"> - £ grant funding 	<ul style="list-style-type: none"> EV2.1 EV4.1 EV4.2 	Grant offer letters

Glossary

Battery electric vehicle (BEV) - 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.

BCP – Bournemouth, Christchurch, and Poole Council.

BTN – Business Travel Network.

Chargepoint – A charging socket which is connected to an electric vehicle via a charging cable to allow the battery to be recharged with electricity.

Chargepoint Network – The way that users access a chargepoint via RFID card or web or app.

Central Southern Region (CSR) EV Framework – A public sector framework for obtaining, developing and delivering EV chargepoints open to public sector bodies based in and around Hampshire, Berkshire, Devon, Dorset, Isle of Wight, Oxfordshire, Surrey, West Sussex and Wiltshire.

eBike – 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.

eCargo bike - an electrically assisted pedal cycle featuring a minimum 125 litre cargo volume capacity and minimum 130 kg weight capacity.

EV – Electric Vehicle; the vehicle is powered by electricity so requires plugging in to recharge the battery.

kWh – Kilowatt Hour; unit of electricity. Car batteries are sized in kWh i.e. a 50 kWh battery stores 50 kWh of electricity.

LTP – Local Transport Plan; the council's strategy and policy framework for transport and guide for investment priorities.

p/kWh – Pence per Kilowatt Hour. Users are charged for each kWh they consume. Charging tariffs are in pence per kilowatt Hour.

Payment by bank card – 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.

PHEV – 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.

Pool car – a vehicle that is made available to staff to book for business travel. Dorset Council currently has 3 electric pool cars but plans to extend this number through the replacement of other petrol / diesel pool cars.

ORCS - On-street Residential Chargepoint Scheme.

Overstay fee – 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.

OZEV - Office for Zero Emission Vehicles.

RFID - Radio-frequency identification is used for wireless automatic identification.