

Newport City Council Consultation Draft Electric Vehicle Charging Infrastructure Strategy 2023-28

CLOSING DATE FOR CONSULTATION RESPONSES: 14th July

This document is available in Welsh / Mae'r ddogfen hon ar gael yn Gymraeg



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1 INTRODUCTION

This is the consultation draft of the Newport City Council Electric Vehicle (EV) Charging Infrastructure Strategy that sets out the proposed aims, themes, actions, and performance measures that we need to take as a Council over the next five years to:

- **Reduce road transport carbon emissions and pollution by facilitating the provision of a network of charge points for residents, businesses, and visitors of the area.**

The consultation seeks your views on the draft Electric Vehicle Charging Infrastructure Strategy which once finalised will shape charging infrastructure for the Newport area over the next five years.

The closing date for responses is 14th July.

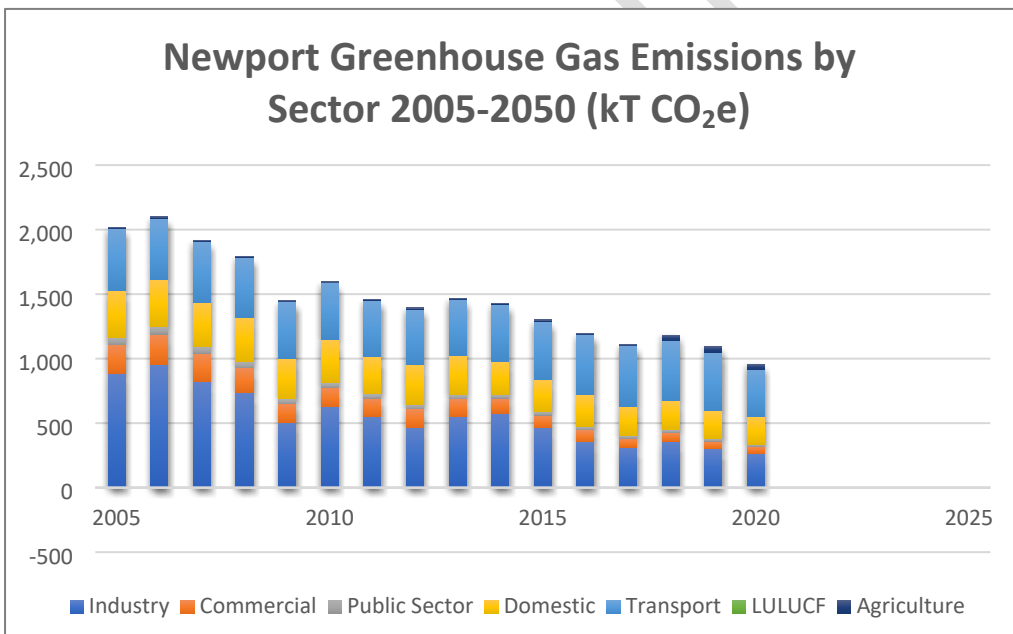
To develop this strategy, we have considered Welsh Government and local policy alongside the current and future needs locally.

1.1 Background

Welsh Government has set out its legal commitment to achieve net zero greenhouse gas emissions (CO₂e) by 2050.¹

1.1.1 Greenhouse Emissions in Newport

Greenhouse gas emissions in Newport have reduced by 53% from 2005 to 2020.

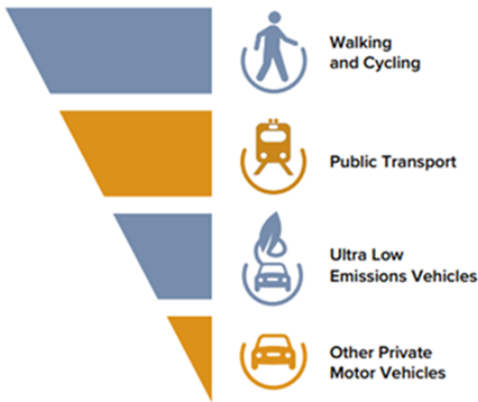


However, transport emissions have stayed relatively constant, and between 2005 and 2020 the proportion of total emissions from transport has increased from 24% to 38%, with 97% of these

¹ [Electric Vehicle Charging Strategy for Wales](#)

emissions deriving from road transport. This shows the need to reduce road emissions to meet the Welsh Government 2050 commitment.

1.1.2 Sustainable Travel Hierarchy



In the council’s [Organisational Climate Change Plan](#), we have endorsed the sustainable travel hierarchy and have acknowledged the role we have to play working with partners across the city to plan and provide an integrated, frequent, low carbon and accessible transport network that is affordable in line with the sustainable travel hierarchy.

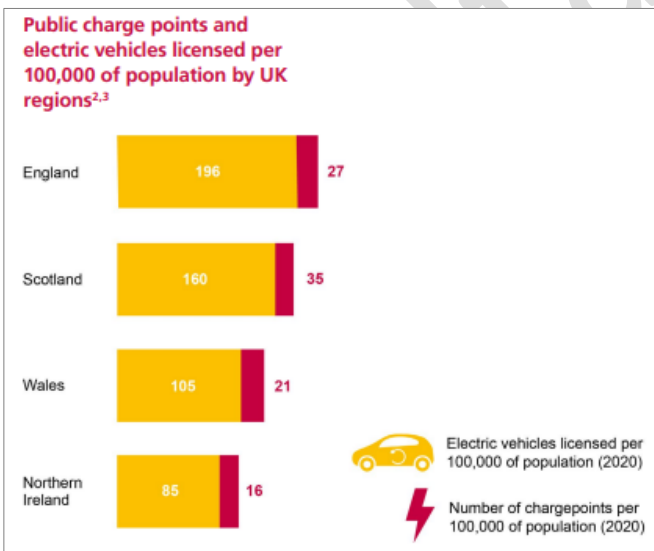
The hierarchy guides decisions about new infrastructure and gives priority to walking and cycling and public transport, followed by ultra-low emission vehicles.

This draft strategy aims to support and encourage the use of electric vehicles by ensuring that council policies support the adoption of different options for recharging. However, this cannot be at the detriment of active travel and public transport.

1.1.3 Electric Vehicles

In November 2022, over 27% of all new cars sold in the UK were battery electric vehicles or plug in hybrid electric vehicles.² The equivalent figure for December 2019 was less than 2%.³ This shows a step increase.

1.1.4 Current Electric Vehicle Charging Infrastructure



Wales currently has one of the lower levels of electric vehicle ownership in the UK⁴

² SMMT (2022). Available at: <https://www.smmt.co.uk/vehicle-data/car-registrations/>

³ DfT (2022). Cars registered for the first time by propulsion and fuel type: Great Britain and United Kingdom (VEH0253). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1046011/veh0253 ods

⁴ [Electric Vehicle Charging Strategy for Wales](#)

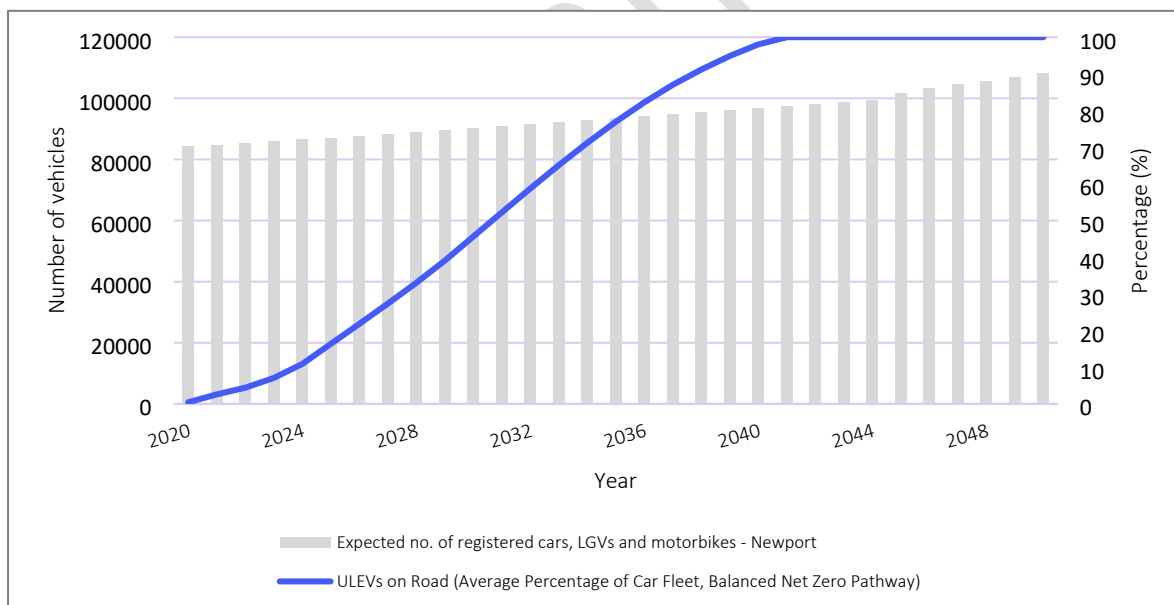
Analysis of the Department for Transport’s quarterly vehicle statistics indicates the city of Newport is currently (as at 2021) ahead of the national and UK average for charging devices per number of ULEVs.

The table below shows the provision of infrastructure across South Wales and uses other local authorities and national levels as a benchmark.

Region	Population	No. of charging devices ⁵	No. of Rapid Charging Devices	Devices per 10,000 of population
Cardiff City Council	362,400	61	21	1.68
Newport City Council	159,600	56	16	3.51
Torfaen Council	92,300	20	2	2.17
Wales	3,105,000	1,725	130	5.56
UK	67,026,292	40,150	7,647	5.99

1.1.5 Predicted Future Electric Vehicle Charging Infrastructure Requirements

The uptake of plug-in vehicles in Newport was forecasted between 2020 until 2050. The data suggests that there will be in the region of 90,000 electric vehicles in the city early in the 2040s when the percentage of EVs is predicted to be close to 100%.



The [Electric Vehicle Charging Strategy for Wales](#) predicts that Newport will require:

Scenario	Date	Rapid	Fast	Slow	Total

⁵ Department for Transport (2021) [Electric Vehicle Charging Statistics](#)

Fast Charging Dominant	2025	80	1740	8830	10650
	2030	145	3180	27470	30795
Rapid Charging Dominant	2025	135	1120	8830	10085
	2030	250	2060	27470	29780

This includes all home, business and public chargers.

The [Newport Local Area Energy Plan](#) sets out a series of targets for public chargers

Public Chargers	Date	Rapid	Fast	Slow	Total
Targets	2025	80	1040	n/a	1120
	2030	145	1980	n/a	2125

This data shows the urgency for developing the charging network across Newport.

1.2 Wales Context

1.2.1 Well-being of Future Generations (Wales) Act 2015



The [Well-being of Future Generations Act](#) (WFG Act) is comprehensive legislative approach to strengthening action on sustainable development in Wales, with a legal link to the UN Sustainable Development Goals. The Act sets out a well-being duty on the Council and other specified bodies to carry out sustainable development and improve the well-being of Wales in accordance with the sustainable development principles.

The Act puts in place seven well-being goals which encompass a vision to improve well-being, including striving to reduce the impacts of climate change for the future.

The sustainable development principle means that a body must act in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

1.2.2 Environment (Wales) Act 2016

The [Environment Act](#) shows how the UN priorities can be implemented at a state and regional level including climate change targets, biodiversity duty and the sustainable management of natural resources. The Act provided the legal commitment that Wales reaches net Zero emissions by 2050.

In Wales, our nature, land, water, and air are our ultimate resource. However, demands on these natural resources are increasing and one of the greatest challenges we face is to find a way to secure healthy, resilient, and productive ecosystems for the future whilst still meeting the challenges of creating jobs, housing, and infrastructure. The Environment Act helps us to meet this challenge.

With the Transport Sector being one of the largest contributors to Greenhouse Gases, a move towards more sustainable modes of transport will help ensure Wales reaches these aspirations and targets of both the WFG Act and the Environment Act.

1.2.3 Llwybr Newydd: Wales Transport Strategy

[Llwybr Newydd](#) or New Path was published in 2021 and is the strategy for Wales that sets out a vision for how the transport system can help deliver in the priorities for Wales. The strategy emphasises the importance of local planning and how it can deliver a widespread electric vehicle charging network. Where new infrastructure is needed, the sustainable transport hierarchy will be used.

And to achieve Priority 3: ***To encourage people to make the change to more sustainable transport.***

The strategy states:

- *We will develop a framework for fair and equitable road-user charging in Wales and explore other disincentives to car use, taking into account equality issues including the needs of people in rural areas, people who share protected characteristics and people on low incomes.*

In addition, as part of the [Roads, Streets and Parking Mini Plan](#) contained in the strategy there are a number of priorities that relate to charging infrastructure.

- *Deliver a strategy for fair road-user charging in Wales as part of a broader package of measures to improve travel choices.*
- *Upgrade, improve and future-proof our road network, addressing congestion pinch points and investing in schemes that support road safety, journey reliability, resilience, modal shift and electric bike, motorbike and vehicle charging.*
- *Deliver our Electric Vehicle Charging Strategy and encourage the use of motorbikes and powered light vehicles instead of cars where there are no other transport choices.*

and also a number of well-being ambitions:

- *Electric vehicle/bike charging facilities are readily available through Wales.*
- *Fair and equitable road charging has reduced emissions.*

1.2.4 Electric Vehicle Charging Strategy for Wales

The [Welsh Government Electric Vehicle Strategy for Wales](#) was published in March 2021. The strategy sets out a vision:

- ***By 2025 all users of electric cars and vans in Wales are confident that they can have access to electric vehicle charging infrastructure when and where they need it.***

With six areas of focus:

- Home charging
- Workplace charging
- On-street charging
- Destination charging
- On-route charging
- Charging hubs

Key conclusions from the strategy are:

- The need for a substantial increase in the number of slow, fast and rapid/ultra-rapid chargers available in Wales. The total need for fast charging, alongside home charging will be a key area of focus to promote equality of access to charging.
- The need for better quality charging, to improve the user experience for electric cars and vans, including better accessibility and inclusivity
- Sustainable, integrated and cross-sectoral planning will facilitate the decarbonisation of energy and transport and create co-benefits. Welsh Government can create favourable conditions for economic and employment opportunities to be captured in Wales.
- The need for better networks will be kept under review by Welsh Government in the context of other measures that are needed to deliver net zero across Wales (for example better broadband connectivity and the electrification of home heating).

When developing the draft Electric Vehicle Charging Infrastructure Strategy for the Newport area, we have considered in detail the context of both Llwybr Newydd and the Electric Vehicle Charging Strategy for Wales.

1.3 Local Context

1.3.1 Corporate Plan 2022-27

The [Newport City Council Corporate Plan](#) which was agreed in November 2022 has four well-being objectives:

- 1) Newport is a thriving and growing city that offers excellent education and aspires to provide opportunities for all.
- 2) A city that seeks to protect and enhance our environment whilst reducing our carbon footprint and preparing for a sustainable and digital future.
- 3) Newport is a supportive city where communities and care are at the heart of what we do.
- 4) Newport City Council is an inclusive organisation that places social value, fairness and sustainability at its core.

The EV Charging Infrastructure Strategy for Newport will support all four of the well-being objectives of the Corporate Plan.

1.3.2 Climate Change Plan 2022-27

In November 2021 the Council proposed a political motion and declared an Ecological and Climate Emergency. As part of this declaration the council agreed to develop a clear Climate Change Organisational Plan.

The [Newport City Council Organisational Climate Change Plan](#) was agreed in March 2022 which is the council's plan to

- Reach net zero carbon as an organisation by 2030.
- Review the services we provide to ensure they support the city's journey to net zero and adaptation to climate change.

The plan has six themes including Theme 4: Transport and Mobility. This theme includes a charging point infrastructure priority to:

- Increase charging capacity across the city

And to achieve this we will:

- i. Increase public charging units across the city considering strategic sites to fit with the wider network.
- ii. Develop an on-street charging installation policy for Newport.
- iii. Increase the number of residents without off street parking that are in a 5-minute walk of a charging point.
- iv. Work in partnership with the region to develop a regional approach to EV charge point infrastructure.

1.3.3 Newport's Local Area Energy Plan

[Newport's Local Area Energy Plan](#) was agreed in June 2022 and presents our vision and route map to reach a net zero local energy system in Newport by 2050.

The route map contains seven priority intervention areas. Priority intervention area 2 is:

- Development of Public EV Charging Infrastructure

With an action to:

- Publish a council EV Strategy / Approach

1.3.4 Air Quality

The World Health Organisation (WHO) developed air quality standards for a range of pollutants to protect human health. Air quality standards have been written into UK and Welsh legislation, and makes the UK Government, the Welsh Government, and local authorities responsible for tackling air pollution. The responsibility of the local authority is to identify and monitor areas within its district that may exceed the air quality objectives. If an exceedance is found the area must be declared as an air quality management area (AQMA) and an action plan be developed to improve. Within the UK the main pollutants of concern covered under this legislation are nitrogen dioxide (NO₂) and particulate material (PM₁₀ and PM_{2.5}). In Newport we currently have 11 AQMAs:

- | | |
|--|---|
| <ul style="list-style-type: none">• Caerleon• Malpas Road, south• Chepstow Road / Clarence Place / Caerleon Road• Cefn Road• Caerphilly Road• George Street | <p>AQMAs along the M4:</p> <ul style="list-style-type: none">• Royal Oak Hill• Basseleg Road, Glasllwch• St Julians• Glasllwch Road, High Cross• Malpas Road, Shaftesbury |
|--|---|

Where a local authority has declared an Air Quality Management Area (AQMA) it must produce an Air Quality Action Plan (AQAP) which must identify potential measures through the use of which can bring about compliance with air quality objectives in the shortest possible time. Welsh Government is piloting the approach of target setting with the NCC AQAP. EV charging infrastructure is embedded within the AQAP and is actively raised under the following pillars of the AQAP:

- Emissions from Transportation
- Emissions from new development
- Education and Awareness

1.3.5 Sustainable Travel Strategy

NCC has approved a Sustainable Travel Strategy (Air, Noise & Sustainability) in 2019 which includes within it specific sections relating to Hybrid/Electric vehicles and Taxis, and opportunities to encourage EV charging.

2 AIM

The Strategy sets out the delivery themes and actions, that we need to take as a Council over the next five years to:

To reduce road transport carbon emissions and pollution by facilitating the provision of a network of charge points for residents, businesses, and visitors of the area

3 THEMES

To deliver on this strategy six delivery themes have been identified based on the Welsh Government Electric Vehicle Charging Strategy for Wales.

3.1 Theme 1: Home Charging

Home charging is the cheapest and most convenient form of charging, usually slow charging overnight for users with off-street parking. 6,555 domestic charging points in Wales received grants from the Electric Vehicle Homecharge Scheme (EVHS) as of October 2021, which equates to 486 chargers per 100,000 household which is one of the lower levels for the UK.

3.1.1 Outcome

All residential properties with off street parking to have access at home.

3.1.2 Actions

To achieve this outcome, we will:

- ❖ Signpost residents of existing domestic properties to appropriate grant funding and information for installation.
- ❖ Review supplementary planning guidance (SPG) (sustainable travel, air quality and parking SPG) to ensure that it meets current council aspirations for charging infrastructure for new residential developments so all new homes with an associated car parking space are ready for electric charging installation.
- ❖ Ensure the next Local Development Plan considers charging infrastructure for all new residential developments so all new homes with an associated car parking space are ready for electric charging installation.

3.2 Theme 2: On Street Charging

On street charging is typically provided via 'fast' dedicated kerbside charging points that avoid cables trailing across footways for users with no off-street parking such as terraced housing and visitors to a destination.

3.2.1 Outcome

All residential properties without off-street parking are within a 5-minute walk of a public charging point.

3.2.2 Actions

To achieve this outcome, we will:

- ❖ Undertake a feasibility study to identify suitable locations for on street chargers across Newport specifically for those residential properties without off street parking. (Already complete).
- ❖ Utilise the information gathered from the above feasibility study to roll out on-street charging hubs and infrastructure across Newport taking into consideration constraints such as:
 - Access to electrical connection,
 - Existing parking,
 - Space on the street,
 - Accessibility of the location,
 - Supportive road side safety assessment
- ❖ In line with the hierarchy of transport, ensure all installations of charge points do not have a detrimental effect on active travel routes or access to public transport.
- ❖ On an ongoing basis source funding from a range of sources to implement on-street charging infrastructure.
- ❖ Investigate the feasibility of partnering with a provider to roll out affordable on-street charging at the pace required.
- ❖ Investigate the feasibility of working with a partner to provide a city-wide Electric Vehicle Car Club.
- ❖ Develop a set of standards and guidelines for on-street charging infrastructure installation.
- ❖ Carry out a pilot of the Gul-e scheme developed by Oxford City Council (<https://gul-e.co.uk/>) which provides a durable gully/channel that is installed in the footway, to enable home EV charging for homes without driveways.

3.3 Theme 3: Workplace Charging

Workplace charging can be slow or fast and is provided in private workplace car parks for business fleet and employee vehicles. 732 workplace charging points in Wales received grants from the Workplace ChargePoint Scheme as of October 2021, which equates to 23 chargers per 100,000 household which is one of the lower levels for the UK.

3.3.1 Outcome

All workplaces have appropriate levels of charging infrastructure for fleet and staff needs.

3.3.2 Actions

To achieve this outcome, we will:

- ❖ Roll out charging at council workplaces (including schools) sites to support our fleet and also employee vehicles as the need increases.
- ❖ Where appropriate work with other public sector, third sector and private sector organisations to share charging infrastructure resources.
- ❖ Signpost and support businesses to source appropriate grant funding (such as the [Workplace ChargePoint Scheme](#)) and information for installation.
- ❖ Ensure the next Local Development Plan considers charging infrastructure for new business developments

3.4 Theme 4: Hub Charging

Hub-based charging is defined as centralised or out-of-town locations with a mix of charging types which could be used by taxis, buses, business fleet, park and ride, car rental companies, freight and logistics.

3.4.1 Outcome

Charging hubs are in appropriate locations where use will be maximised.

3.4.2 Actions

To achieve this outcome, we will:

- ❖ Work closely with Transport for Wales to install electric vehicle charging at locations that complement other modes of sustainable transport, including the use of public transport, walking, and cycling.
- ❖ Install charging hubs in council owned car parks.
- ❖ Increase taxi charging hubs as the number of EV taxi licences increases.
- ❖ Investigate the feasibility of including charging hubs in planning guidance for new residential developments for residents to share charging points as part of the development of the new Local Development Plan.
- ❖ Ensure the charging network makes full use of renewable energy generation where possible.

3.5 Theme 5: Destination Charging

Destination charging is defined as fast charging provided at destinations where the visitor may park for several hours such as the gym, the shops or leisure facilities. This would also include slow overnight hotel charging which is most cost effective.

3.5.1 Outcome

Charging points are located in appropriate locations where people visit.

3.5.2 Actions

To achieve this outcome, we will:

- ❖ Signpost and support businesses to source appropriate grant funding and information for installation.
- ❖ Ensure planning guidance for new business developments includes the requirements for destination charging infrastructure. Ensure the next Local Development Plan considers charging infrastructure for new business developments which would be suitable for the installation of destination charging infrastructure

3.6 Theme 6: On Route Charging

On route charging is defined as topping up midway through a journey.

3.6.1 Outcome

Charging will be available on main routes

3.6.2 Actions

To achieve this outcome, we will:

- ❖ Work closely with Welsh Government Strategic EV team to install rapid charging hubs on main routes.

4 HOW WILL WE MEASURE SUCCESS?

A progress report will be developed on an annual basis, describing progress against each of the actions in the strategy. It will also include the following trend data year on year to track progress:

- Total number of home charge points
- Total number of public charge points
- Total number of workplace charge points
- Percentage of residential properties without off-street parking that live within 5 minutes of the public charging point.
- Proportion of EV miles driven
- Road transport carbon emissions (CO₂) for Newport
- Air Quality - nitrogen dioxide (NO₂) and particulate material (PM₁₀ & PM_{2.5})
- Air Quality Management Areas

5 NEXT STEPS

This consultation seeks your views on the draft Electric Vehicle Infrastructure Charging Strategy

The closing date for responses is 14th July.

Your responses will help inform the Strategy which will be published in 2023.

Once published this will shape Electric Vehicle Charging Infrastructure for the Newport area over the next five years.

5.1 Timescales

Nov 2022 – Apr 2023	Drafting Strategy
Early May 2023	Present to Cabinet member and Leader
2 nd June 2023	Strategy presented to Scrutiny committee for feedback
19 th Jun 2023	Public Consultation Period starts
14 th Jul 2023	Public Consultation Period end
July 2023	Strategy redrafted in light of consultation
Mid Aug 2023	Final version agreed by Cabinet Member

6 GLOSSARY & DEFINITIONS

Climate Change

Climate Change includes global warming and the “side effects” of warming, e.g. melting glaciers, heavier rainstorms, more frequent drought.

Climate Emergency

The Climate Emergency is a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.

Electric Vehicle (EV) Charging Infrastructure

Electric vehicle charging infrastructure is the equipment required to deliver energy to an Electric Vehicle, including all civil and electrical infrastructure or equipment located downstream of the Service Meter such as panel boards, switchboards, conductors, pathway, equipment foundations.

Electric Vehicle (EV) Charger types

Slow: A charger that's around 3kW will give a slow charge, averaging around 10-14 hours

Fast: 7kW – 22kW will give your EV a “fast” charge – usually in around 4-6 hours

Rapid: A 50kW – 120kW charger is classed as a rapid charger and will give you a full charge in about an hour.

Greenhouse gases (GHG)

Greenhouse gases are the thin layer of gases surrounding the Earth. These gases include both naturally occurring and human-derived greenhouse gas such as carbon dioxide, methane, water vapour and nitrous oxide.

Net zero

Net zero is achieving a balance between the amount of greenhouse gas emissions produced and the amount removed.

Tonnes of Carbon Dioxide Equivalent (tCO₂e)

Tonnes of carbon dioxide equivalent is a measure used to compare the emissions from various greenhouse gases based upon their global warming potential. For example, the global warming potential for methane over 100 years is 21. This means that one million metric tons of methane emissions is equivalent to 21 million metric tons of carbon dioxide.

Ultra-low emission vehicles

Ultra-low emission vehicles are vehicles that emit less than 75g of CO₂ per km from the exhaust.