



Gwasanaeth Tân ac Achub
Canolbarth a Gorllewin Cymru

Mid and West Wales
Fire and Rescue Service

CARBON REDUCTION ROAD MAP 2024 – 2030



Mae'r ddogfen hon ar gael yn Gymraeg

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Section 1 - Our pathway to net zero

1.1 Introduction

Mid and West Wales Fire and Rescue Service recognise how important it is to reduce our carbon emissions and the impact we have on the environment through our activities. Reducing carbon and other greenhouse gas emissions is a key challenge for the Fire and Rescue Service and all organisations in Wales in the current climate emergency. Mid and West Wales Fire and Rescue Service is committed to excellence with a vision to deliver the best possible service for the communities of mid and west Wales.



The Service covers almost two-thirds of Wales, covering 4,500 square miles of predominantly rural land. The estate portfolio holds an array of buildings which includes 58 fire stations, vehicle workshops, training facilities, classrooms and office buildings and employs around 1,300 staff providing operational and support cover.

October 2021, Welsh Government set out its second carbon budget, "Net Zero Wales", which confirmed the ambition of achieving a collective carbon neutral public sector by 2030. In line with this challenging aim, the Service have introduced this Carbon Reduction Road Map, to further support our work towards reducing our carbon emissions.

As a public sector organisation, it is important to be aware of the available budget to be able to make changes to reach net zero by this ambitious deadline. To commit to reducing carbon emissions on a large scale would rely on avenues such as funding and in many cases the sustainable option which has a large impact on carbon reduction is the more expensive option. It is this change in mind set and culture that is needed to help achieve the Welsh Government ambition across the country, not just in the public sector.

The biggest impact the Fire and Rescue Service can have to reduce emissions is through making changes to fleet, employee commuting and estate. Small, low-cost changes can have a big

impact, such as reducing single use plastic bottles, encouraging reusable cups and cultural behavioural change amongst staff.

The start of 2024 saw global warming exceed the 1.5 degree target for the first time since pre-industrial level baseline. The climate crises will impact communities differently, depending on who you are and where you may live. While the most significant reductions and changes will come from large organisations, the public sector and Welsh Government, individuals can also play their part by reducing energy at home, improving insulation and choosing more sustainable, and local food choices.

Mid and West Wales Fire and Rescue Service accounts for a small amount of Wales's overall emissions, yet we are able to influence emissions more widely in areas such as transport and energy

and have a positive impact on local economy by creating investment opportunities for low carbon initiatives developed to help tackle the climate crises and carbon emissions. Mid and West Wales Fire and Rescue Service is dedicated to a long-term reduction of greenhouse gas emissions which will work towards the Welsh Government commitment to reduce carbon emissions to net zero by no later than 2030. The vision from Welsh Government is that by 2030, choosing zero carbon will be routine, culturally embedded, and self-regulating across the Welsh public sector.



1.2 Legislation

Welsh Legislation, strategies and commitments driving decarbonisation.

‘Net Zero can be defined as balancing the amount of greenhouse gases we put into the atmosphere with those we take out.’

[Net zero sector skills](#) | [GOV.WALES](#)

Over recent years, the Welsh Government has strengthened its legislative framework to reduce greenhouse gas emissions through legislation such as, the Well-Being of Future Generations (Wales) Act 2015 and The Environment (Wales) Act 2016.

The Future Generations of Wales Act 2015, Public Service Boards (PSBs) were established in 2015 to bring together local public service leaders to address the well-being needs of their areas as part of the Well-being of Future Generations (Wales) Act 2015. The Fire Service are a statutory member of these groups and duties include assessing the state of economic, social, environmental and cultural well-being in our areas. This has encouraged collaboration and commitment across Wales in all areas, to set targets and develop local plans to reduce carbon emissions and nature recovery by each Unitary authority.



In terms of carbon reduction, we continue to influence the achievement of a Globally Responsible Wales by continuing to make significant changes to the way we work in several areas, such as encouraging hybrid working arrangements using technology, the adoption of the Cycle to Work Scheme, Car Salary Sacrifice Scheme, the installation of solar panels on Service owned buildings, as well as the installation of EV charging points. We will aim to reduce the use of single-use plastic water bottles and promote the use of electronic correspondence, documentation and form submissions to reduce the amount of paper used in our activities.

March 2021, the Environment (Wales) Act 2016 was updated to set a national net zero target for 2050. In line with the Climate Change Adaptation Plan for Wales, there have been Carbon Budgets set for emissions. This piece of legislation will require a 37% reduction by 2025, and a 58% reduction by 2030 across Wales. The Welsh Government has set a more ambitious target for the Public Sector, which is required to be net zero carbon by 2030.

1.3 Strategic Intent and Commitment

Mid and West Wales Fire and Rescue Service have set a clear strategic commitment to becoming a net zero organisation, by working to reduce our carbon emissions in line with Welsh Government's Net Zero aim.

The Service has set out its environmental vision over several years, with its 2020-2025 Sustainability and Environmental Strategy, to more recently, the Service's Community Risk Management Plan 2040, which includes eight Improvement and Wellbeing objectives, one of which is to work in an environmentally friendly and sustainable way.

Mid and West Wales Fire and Rescue Service is working to tackle climate change, resource depletion and pollution issues, and is committed to reducing its environmental impact.

We recognise that our operations have an effect on the global and local environment and are committed to minimising adverse environmental impacts within financial, operational and resource constraints.

In our Net Zero journey, the Service has set itself targets that align with the Welsh Government route map for decarbonisation across the Welsh public sector.

1.4 Governance

The Service have successfully achieved and maintained the Green Dragon Environmental Management System, Level 5 since 2014, which ensures Mid and West Wales Fire and Rescue Service continually improves and works towards environmental objectives in several areas, such as waste, carbon reduction, utilities, fleet and biodiversity.

In line with the requirements from the Environmental Management System an Annual Environmental Report is published which captures the Service's carbon emissions for the previous financial year and captures other statistics and environmental objectives. The objectives outlined within the Report are in line with the high-risk environmental aspects from all Service activities. These objectives are relevant and applicable from Executive Board through to firefighters and support staff.

In 2024, the Service published a Community Risk Management Plan 2040 (CRMP) which contains 8 improvement and well-being objectives which were developed to assist in the achievement of the Service's vision, to deliver the best possible Fire and Rescue Service for the communities of mid and west Wales.

Objective 7 of the CRMP is to 'work in an environmentally friendly and sustainable way'. This Road Map will work directly towards the objective, progress of which will be monitored through the Sustainability and Environment Group and CRMP Objective 7 Working Group. Updates on progress of the Road Map will also be reported and monitored through the Service's CRMP Delivery Board and the Fire Authority's Performance, Audit and Scrutiny Committee on a quarterly basis.

All Welsh public sector organisations are required to complete a Net Zero Return to Welsh Government annually and along with the Carbon Trust, the Welsh Government will analyse and monitor all returns to ensure there is an adequate reduction.

Carbon Baseline Data

To understand how we can reduce our carbon emissions and how to move forward, the Service has carried out baseline work and completed several evaluation studies to report on its current position. This includes reviews on Service fleet and pool car usage, staff travel and commuting, review of energy providers, renewable energy scoping such as photovoltaics (PV) and estate structural surveys.

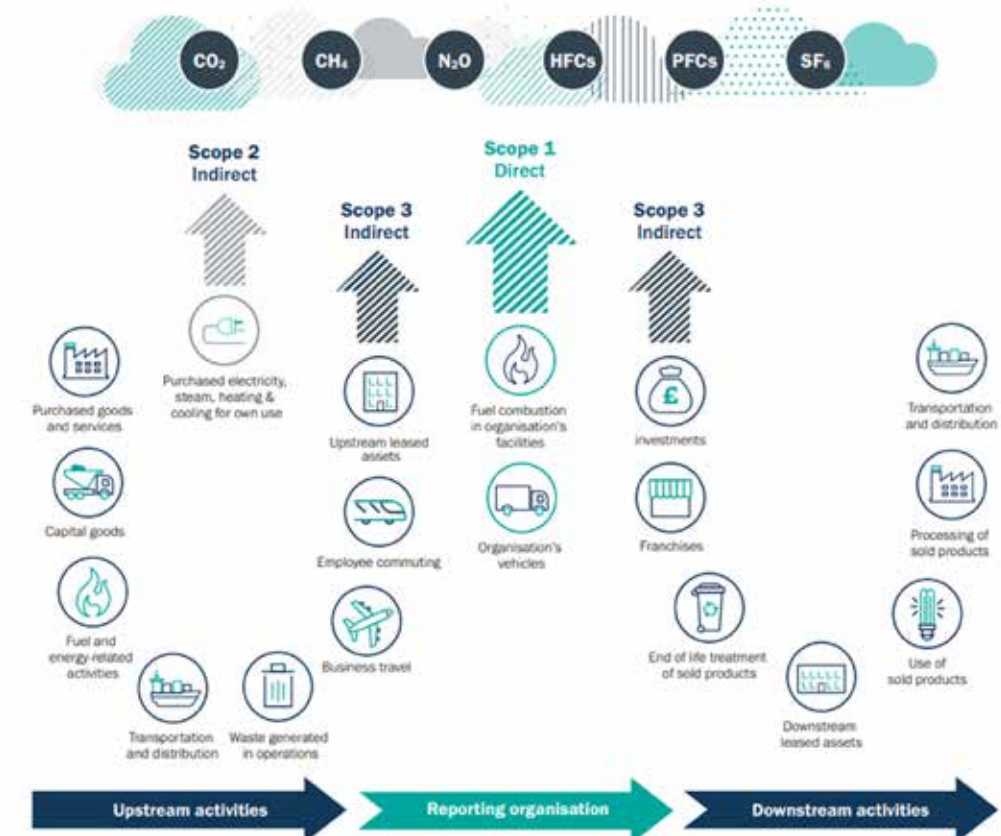
To capture all aspects of Mid and West Wales Fire and Rescue Service activities thoroughly and accurately within the Carbon Reduction Road Map, in 2022 a Report was developed by an external consultant to provide robust and meaningful baseline data from the Service's activities and estate and to present a strategy to support our Net Zero aim. During this period, engagement with several Departments was undertaken to capture all relevant data, recording and processing to include within the baseline report, as well as 8 site visits across the Service estate, which has been used to support the development of this Service Carbon Reduction Road Map 2024-30.

Our carbon themes included within this Carbon Reduction Road Map will concentrate on 5 main areas, which are the biggest contribution to carbon emissions.

- Buildings,
- Fleet,
- Procurement,
- Biodiversity,
- Ways of Working.

1.5 Performance

Mid and West Wales Fire and Rescue Service publish an Annual Environmental Report which captures all applicable emissions from Service activities and operations and report these under Scope 1,2 and 3 emissions.



Scope 1 refers to direct Greenhouse gas emissions which are emitted and owned or under the control of the Fire Service. These will include emissions from fuel combustion on site such as a gas boiler, fleet vehicles and air-conditioning leaks.

Scope 2 refers to indirect emissions that are purchased and used by the Service, which includes electricity, steam and heat which are created and produced from outside the Service.

Scope 3 emissions cover all other indirect emissions that are a consequence of the activities that arise from sources owned or reported by another company which we have no operational control over. Examples include emissions from an employee's commute, outsourced manufacturing activities, and emissions from the use of products and services such as waste and water.

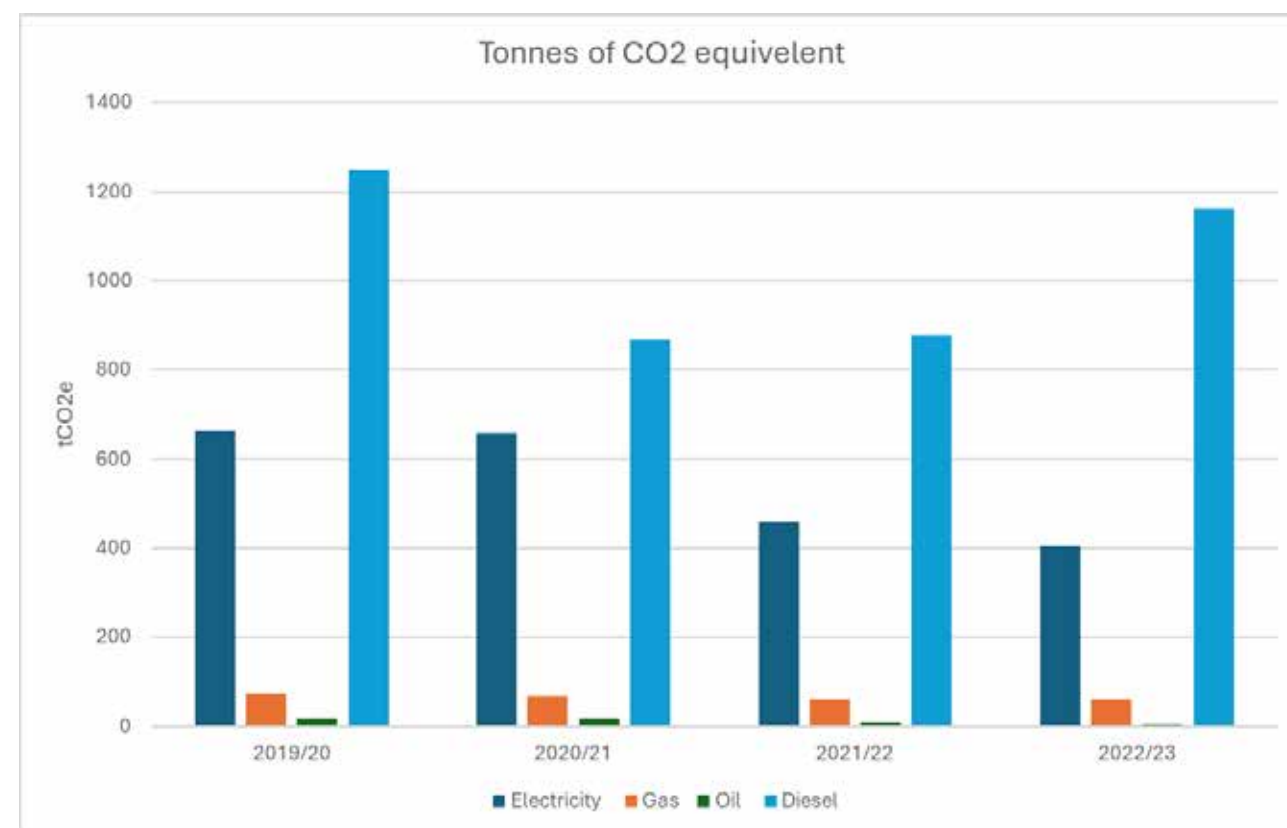
To calculate the Services carbon footprint, the fleet, estate, waste, travel, and supply chain emissions need to be considered. As a Service we have several key performance indicators to enable the measurement of performance of environmental criteria. These include:

- Carbon emissions (tCO₂e),
- Electricity consumption (kWh),
- Gas consumption (kWh),
- Fuel consumption (litres),
- Fleet travel (miles).

CO² equivalent is a unit of measurement used to report on greenhouse gas emissions regardless of whether they are from carbon dioxide (CO²) which is the main greenhouse gas, or another greenhouse gas, such as methane.

The graph below shows the total annual consumption for the last 4 financial years for gas, electric, heating oil and diesel. Electricity is by far the Services highest consuming resource and with the increase in electric vehicles into the fleet, will continue to be. Not all of the Service premises will

have gas and from 2023 onwards, only 2 locations will utilise oil as their main source of heating fuel, to enable the function of day-to-day activities, these will remain due to the Service being unable to connect to a more preferable source at this stage.



Managing and maintaining the 58 Fire Stations, workshops and office buildings within the estate consumes a significant amount of energy. In 2022/23, the Service's utilities equated to 472.19 tonnes of CO² equivalent.

To put this into perspective, a 3,200 miles flight, one way from London to Boston, USA, emits approximately 1 ton of CO² per passenger.

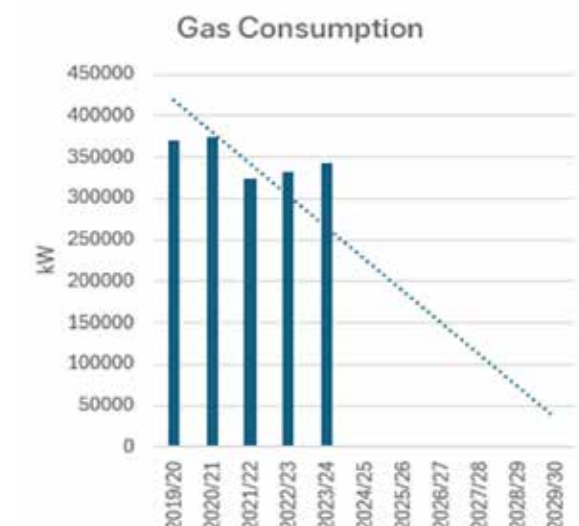
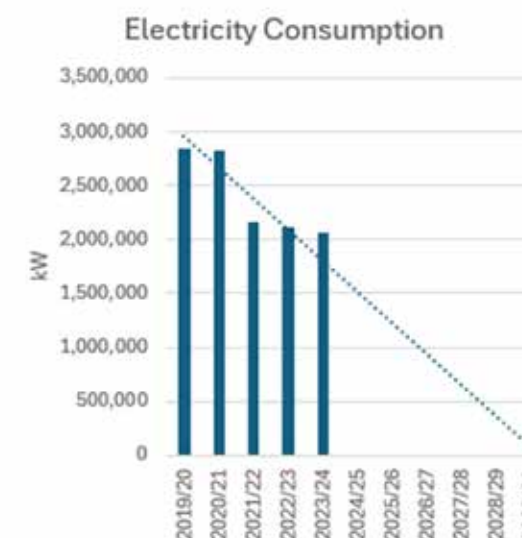


The Service does not see offsetting as a viable option to reduce carbon emissions from activities. Due to the rural locations of some of the Fire Stations, this can sometimes mean that there are limitations to what can be done in terms of carbon reduction initiatives and what is reasonably practicable in relation to cost benefit analysis and savings.

It is important to ensure that the electricity the Service purchases is supplied by a renewable energy provider. As indicated by the graph above, although electricity is the highest consumption in terms of energy, the supply of electricity to keep Mid and West Wales Fire and Rescue Service running comes from a 100% renewable provider and is broken down in the following way:

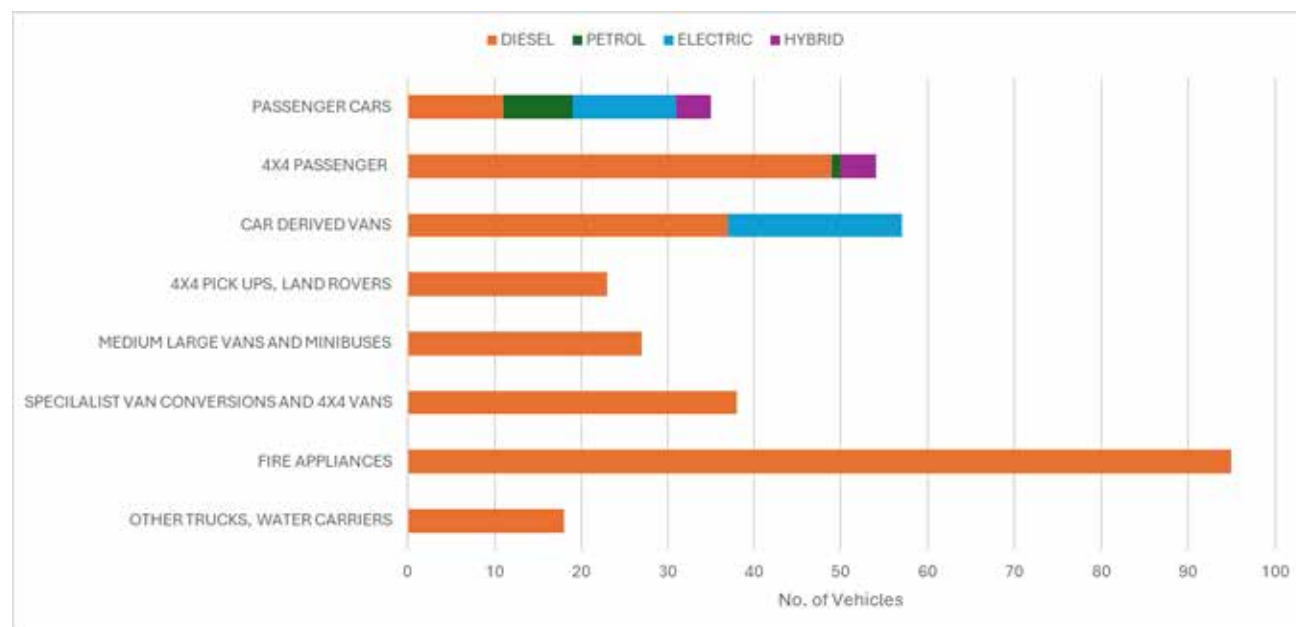
| | % Split |
|----------------|---------|
| Biomass | 1.25% |
| Off-shore Wind | 58.70% |
| Photovoltaic | 7.65% |
| Wind | 32.40% |
| Grand Total | 100% |

To be able to obtain Net Zero for electricity and gas consumption by 2030 the projection line shown in the graphs below, indicated by the blue dotted line, needs to be followed:



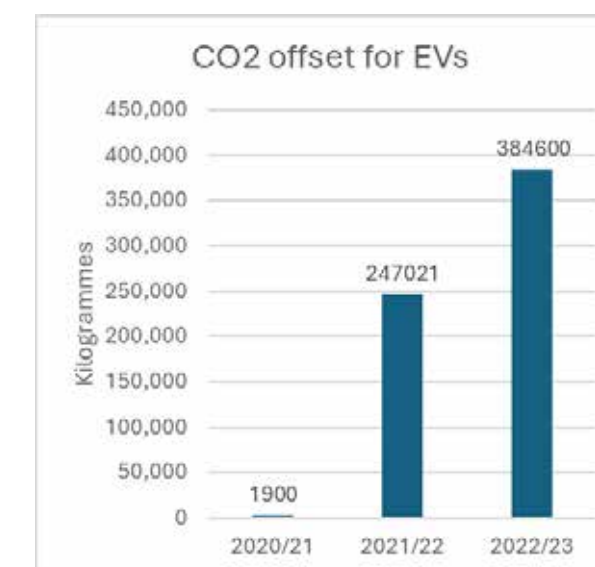
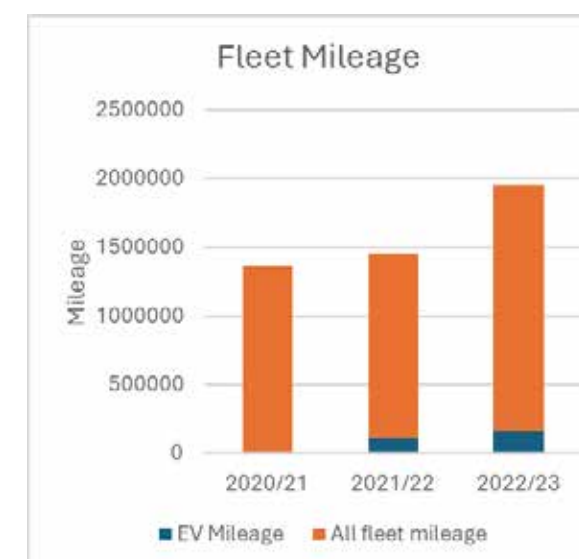
The Service have a fleet of approximately 340 vehicles which is a mixture of response, specialist, maintenance and pool vehicles. There are a range of fuel types used to enable the fleet to function efficiently and effectively over the vast area of Wales the Service covers, including diesel, petrol, electric and hybrid vehicles. As of 2023/24 many of the Service Pool vehicles have been converted

to Ultra Low Emission Vehicles (ULEV) with 35 fully electric vehicles and 10 hybrid vehicles being used within the Service and 24 Service sites with electric charging points installed. These figures are expected to increase moving forward in line with the Service carbon reduction aims. This is further illustrated below.



The breakdown of electric vehicle mileage and all other fleet is broken down below, illustrating fleet utilisation over the previous 3 years.

| | 2020/21 | 2021/22 | 2022/23 | 2030 Target |
|--|-----------|-----------|-----------|---|
| EV Mileage | 802 | 113,676 | 163,721 | 100% of pool vehicle fleet mileage to come from EV or ULEV. |
| All Fleet mileage | 1,359,486 | 1,339,902 | 1,793,490 | |
| kW used to charge EV | Unknown | Unknown | 56,314 | |
| Kgs of CO ² offset from diesel vehicles | 1,900 | 247,021 | 384,600 | 80% fossil fuelled vehicles to be replaced by EV/ULEV or HVO. |



In line with the Carbon Reduction Road Map, by 2030, 80% of total mileage from Service fleet should come from EVs and all pool vehicles should be electric or ULEV. It will not be possible to replace appliances, but diesel fuel can be replaced by the low carbon emissions alternative Hydrotreated Vegetable Oil (HVO) fuel.

Alternatively fuelled vehicles cost more to buy than equivalent diesel or petrol vehicles, particularly battery electric and hydrogen vehicles, although it is anticipated that the costs of these vehicles are expected to fall closer to conventional vehicles costs over time.

The use of HVO at a small number of locations is currently underway to establish the feasibility to move away from diesel fuelled appliances to HVO, which would result in a large reduction in CO² emissions. If deemed successful, this can save over 50% carbon emissions from Service Operational vehicles immediately.

In 2017, as part of our sustainable journey, the Service purchased two Hyundai ix35 hydrogen fuel cell vehicles as a feasibility trial. The vehicles were used throughout the Southern Division area (Swansea and Neath Port Talbot) for Business Fire Safety (BFS) duties and were refuelled at the

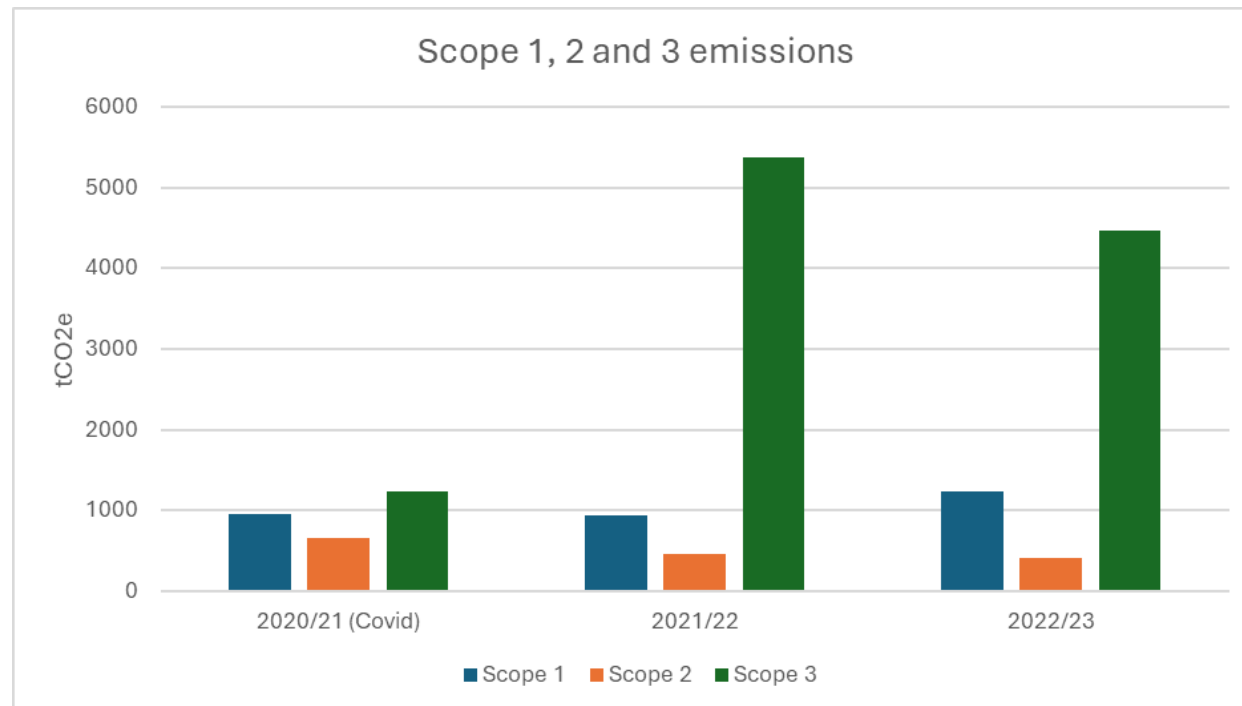
Baglan Energy Hydrogen Centre. This was a huge step in the aim to reduce fleet carbon emissions, but unfortunately, due to the lack of refuelling infrastructure for hydrogen this was not deemed a feasible long-term option at the time.

Following on from the change implemented during lockdown, many meetings both internal and external, are held virtually or as a hybrid meeting, saving on travel to and from meetings with very few being fully held face to face. The Service encourage car sharing for meetings and training courses and are currently reviewing a new vehicle booking system to assist in this area and make car sharing easier.

Due to the large area covered by Mid and West Wales Fire and Rescue Service and the locations of offices, commuting statistics are a challenging area to manage and record. Agile working has helped reduce this in terms of CO² emissions, but work needs to be done to encourage commuting car sharing possibilities.

Scope 1, 2 and 3 emissions

Scope 1 and 2 emissions can be managed in house through a proactive approach and are within the control of the Service. Scope 3 emissions, make up the largest carbon footprint and are outside of our control to a certain extent. Who the Service, choose to work with through our supply chain can be controlled.



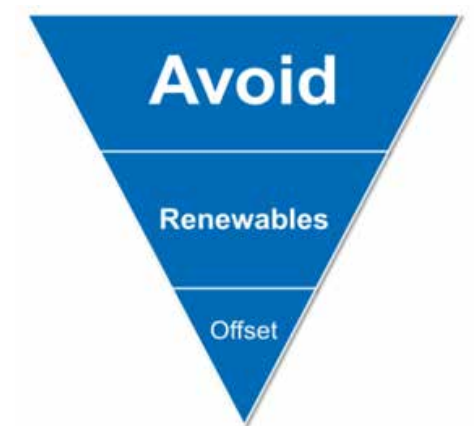
Scope 3 emissions usually make up 80% of any organisations emissions and are the hardest to control and report on. The last 2 financial years have seen an increase in Scope 3 emissions, since the baseline year of 2020/2021, this could be partially due to lockdown and also due to the infancy of the Service monitoring and recording of statistics of the Service's Supply Chain. The process currently used externally to provide carbon emission calculations is based on amount spent and not what the Service spend it on which is proving to be

a barrier when reporting on Scope 3, supply chain figures. The Welsh Government Net Zero Reporting requirement has further improved the Service's reporting of Scope 3 emissions.

To follow a credible and cost-effective path to achieving net zero, the Service can align changes and develop education for members of staff to work towards the emission reduction hierarchy which is outlined below.

To work towards the hierarchy:

- Avoid / reduce consumption: Avoid or reduce consumption through measures such as avoiding waste, performing operations more efficiently and using more efficient or lower carbon technologies.
- Use renewables to decarbonise the energy supply, Decarbonise your energy supply through using low carbon energy generation technologies such as solar PV or heat pumps or by purchasing green energy
- Offset residual emissions, this is for unavoidable residual emissions and can include measures such as natural sequestration or purchased offset.



Service Projects

There are a range of environmental management projects which the Service have delivered since 2020 with the aim of reducing carbon emissions.

- Carbon Literacy training – General environmental awareness e-learning Training delivered to staff members has been further enhanced following the outcomes of the Audit Wales Report.
- Compartmental Fire Behaviour Training – This training delivery unit has been developed in Earlswood to capture emissions into a filtration unit to prevent escape into the atmosphere during training exercises.

Below are further examples of what the Service has undertaken;

- Reviewed procedures and guidance for Sustainable Procurement and tenders,
- Implemented ULEV pool fleet,
- Implemented HVO trial in 3 Service Stations,
- Rolled out hybrid and remote working where possible to support Staff,
- Installed LEDs in Stations,
- Signed up to Swansea Bay Healthy Travel Charter,

- Installed Solar panels on a number of suitable buildings,
- Moved away from heating oils to gas where possible,
- Issued individual reusable water bottles to all Staff to replace single use water bottles on Stations,
- In 2023, an energy survey was undertaken to assess the feasibility of installing PV arrays on Service Stations,
- If required, work towards Welsh Procurement Policy Note 06/21: Taking account of Carbon Reduction Plans in the procurement of major government contracts, to encourage decarbonisation through procurement.



Section 2 - Aim, objectives, and projections

The Service has set short (by 2026) and medium (by 2030) term aims, which are captured within this Report. Additional long-term aims have also been included within the report for achievement by 2040.

| Timeline | Key |
|--|---------------|
| 1-2 years 2024-2026 (Short Term) | Orange circle |
| 3-4 years 2027 – 2030 (Medium term) In line with Welsh Government | Yellow circle |
| 5+ years 2031 – 2040 (Long term) | Purple circle |

Delivery of the measures outlined below are on evidence based at an organisation level but will undoubtedly have more chance of success if there is a significant behaviour change amongst Staff.

Certain areas will not decarbonise without a proactive effort from the Service and the changes are within the Services direct control. Many areas of discussion interlink to each other, so it is important to consider measures holistically, such as:

- Energy management, BMS and metering.
- Heating management options considering the level and age of the building fabric and planned improvements and systems upgrades.
- Utilising onsite generation such as rooftop PV alleviating the burden on the grid, as well as providing low-cost electricity.










Each objective will work towards either Scope 1,2 or 3 and this will be shown in the tables below.










Captured within the Aims below, the Service will work towards completing all the recommendations set out in the Audit Wales Report. These recommendations include:

- Improve the quality of the carbon baseline,
- Review environmental plans to ensure they fully capture decarbonisation priorities,
- Revise the vehicle replacement policy and the estates strategy and agree the Authority's strategy for replacing diesel appliances and improving the charging infrastructure across the Authority's area,

- Engage and involve staff in planning for carbon emissions reduction to ensure they take ownership of the Authority's plans for improvement and are fully contributing to delivery of key actions,
- Strengthen how progress in delivering actions to reduce carbon emissions and delivery against Welsh Government targets is progressing and resulting in improvement.

The aims below have been consulted on, reviewed, and agreed by applicable internal stakeholders alongside the outcomes of the external Consultancy Technical Report.

| Aim | Time period | Scope 1, 2 or 3 |
|--|--|-----------------|
| 2.1 Transport and Sustainable Travel | | |
| Improve the Service data management and reporting for both mileage and fuel consumption. | 2024-26  | 1 |
| Increase the number of electric EV/ULEV pool vehicles implemented across the fleet while evaluating alternative fuels for our vehicles. All Pool cars to be ULEV by 2030. | 2027-30  | 1 |
| Develop an understanding of how vehicles are used in terms of attending meetings and business travel. Promote car sharing and sustainable travel and reduce the number of journeys and frequency of travel for internal deliveries. Develop a Workplace Travel Plan. | 2024-26  | 1 & 3 |
| Improve electric vehicle charging infrastructure across Service area to allow for increased use of electric vehicles. | 2040  | 1 |
| EV Charging point installation to be included in the specification of any refurbishment or new build. | Ongoing | 2 |
| Begin transitioning light commercial support fleet to ULEV technology, such as maintenance vehicles, estates vehicle and stores vans. | 2027- 30  | 1 |
| Monitor Emergency Service Specialist ULEV technology to influence it to meet the needs of the Fire Service where possible. Delivered through a 5-year Fleet and Equipment Strategy. | 2027- 30  | 1 |
| To develop an interim strategy for fossil fuelled fleet to utilise alternative low carbon fuels such as HVO. | 2024-26  | 1 |
| 2.2 Building management and grounds maintenance | | |
| Implement utility smart meters at all sites to effectively monitor energy usage. Develop and apply a BMS system to support monitoring and improvements. | 2027- 30  | 1&2 |
| Undertake an energy audit on our sites and identify areas of carbon savings and reductions. | 2024-26  | 1&2 |

| | | |
|---|--|-------|
| Consider the recommendations from WGES Feasibility Study to increase renewable energy, such as solar PV installation across the estate and sustainable heating where possible, such as air source heat pumps. | 2024-26  | 1 |
| Review of boiler replacement programme to phase out oil heating and upgrade to more sustainable and efficient solutions. | 2027- 30  | 2 |
| Consider and develop an insulation improvement plan to all applicable Stations. | 2027- 30  | 1 & 2 |
| Initiate a review and implement changes for improvement for Display Energy Certificates locations to improve ratings. | 2024-26  | 1 & 2 |
| LED lighting is currently installed across 70% of Service locations. To work towards 100% LED fittings and improve lighting to most energy efficient lighting. | 2027- 30  | 2 |
| 2.3 Procurement process and supply chain | | |
| Use Welsh Government Net Zero report to guide internal Scope 3 reporting on supply chain and highlighting areas to improve emissions. | 2027- 30  | 3 |
| Improve understanding and reporting of Supply Chain emissions. Work with suppliers to improve the environmental impact of the supply chain. | 2027- 30  | 3 |
| As a Service, research and maximise funding opportunities for new projects for carbon reduction and environmental projects. | Ongoing | 2 & 3 |
| Raise awareness to all personnel in relation to packaging of all goods supplied to the Service to encourage the use of recyclable materials or alternatives to plastic and reduce/limit the use of plastics where possible. | 2027- 30  | 3 |
| Consider local suppliers to produce Welsh food and local products, where possible. | 2027- 30  | 3 |
| 2.4 Waste and recycling | | |
| Raise awareness on waste production Service wide. Put new measures in place to ensure waste and recycling figures are reduced with a focus on the waste hierarchy. | 2024-26  | 3 |
| Reduce amount of general waste produced internally and collected across the Service area. | 2024-26  | 3 |
| Monitor orders of single use plastic bottles to ensure reduction of waste to remain below 50% of baseline year of 2019/20. | 2024-26  | 3 |



2.5 Operational processes, training and behaviour change

| | | | |
|---|----------|---|----------|
| Completion and evaluation of the new Compartment Fire Behaviour Training unit in Earlswood and to obtain SMART figures to report on reduced emissions. | 2027- 30 | ● | 1 & 2 |
| Consider Training improvements to reduce and evaluate carbon emissions for operational duties. | Ongoing | | 1 & 2 |
| Consider working with partners to develop training to improve environmental awareness Service wide. Support the Carbon Reduction Road Map through Carbon Literacy Training. | 2024-26 | ● | 1, 2 & 3 |
| As a Service, aspire to be paper free. Where unable to do this, ensure that only the recycled and Steibeis paper is used. | 2024-26 | ● | 2 |
| Educate staff on techniques to improve waste and recycling, and reduce gas and electric consumption. | Ongoing | | 2 & 3 |

Section 3 - Review and monitoring

This Carbon Reduction Road Map is for the period 2024 – 2030, in line with Welsh Government aims and carbon budgets and in addition to Objective 7 ‘ We will work in an environmentally friendly and Sustainable way’ of the Service’s Community Risk Management Plan 2040.

Ownership of the Road Map will sit with the members of the Sustainability and Environment Group. A review of the aims outlined within this Road Map will take place periodically. In addition to this, further updates of performance will be reported to the Performance, Audit and Scrutiny Committee, in line with the Service’s Community Risk Management Plan.

Updates on the objectives contained within the Road Map will be reported annually via the Service’s Annual Environment Report.



Definitions

The term ‘Net-zero emissions’ is often confused with other terminology, which can lead to conflict-ing approaches in respect of reducing climate impacts. The Institute of Environmental Manage-ment and Assessment Pathway to Net-Zero course offers the following definitions to support un-derstanding:

- **Net-Zero:** refers to the state in which greenhouse gases emitted into the atmosphere are balanced by removal out of the atmosphere.
- **Carbon Neutral:** refers to when organisations, companies, processes and product carbon emissions are calculated and compensate for what they produce, e.g. via car-bon offsets.
- **Climate Neutral:** Activities result in no net effect on the climate system. Any green-house gas emissions or other activities with warming effects are fully compensated by greenhouse gas reductions or removals or other activities with cooling effects.
- **Absolute/True Zero:** No greenhouse gas emissions are attributable to activities. Un-der this definition, no offsets or balancing of residual emissions with removals are used.
- **Carbon dioxide equivalent (CO²e):** The carbon dioxide equivalent (CO²e) allows the differ-ent greenhouse gasses to be compared on a like-for-like basis relative to one unit of CO².
- **Carbon Footprint:** measurement of total greenhouse gas emissions caused directly and indi-rectly by a person, organisation, event or product.
- **Scope 1:** Emissions from operations that are owned or controlled by the reporting organisa-tion
- **Scope 2:** Indirect emissions from the generation of purchased or acquired electricity, steam, heat or cooling consumed by the reporting individual
- **Scope 3:** All indirect emissions that occur in the value chain of the reporting company which have not been included in Scope 2, including upstream and downstream emissions.
- **Grid:** A system of power transmission and distribution (T&D) lines under the control of a coordinating entity or grid operator, which transfers electrical energy generated by power plants to energy users, also called a power grid.
- **ZE / ZEV:** Zero emission / Zero emission vehicle – a vehicle with no tailpipe or emissions or pollutants.
- **Greenhouse gas (GHG):** a gas in the atmosphere that absorbs and emits radiation within the thermal infrared range. The primary greenhouse gases in earths atmosphere are water vapour, carbon dioxide, methane, nitrous oxide and ozone.

CARBON REDUCTION ROAD MAP 2024 – 2030



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Mid and West Wales
Fire and Rescue Service

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**Ein Negeseuon
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Our Safety
Messages

EIN GWELEDIGAETH

I ddarparu'r gwasanaeth gorau posibl i
gymunedau Canolbarth a Gorllewin Cymru.

OUR VISION

To deliver the best possible service for
the communities of Mid and West Wales.

