



Gwasanaeth Tân ac Achub
De Cymru

South Wales
Fire and Rescue Service

Carbon Reduction Plan 2020 - 2023



Foreword

South Wales Fire and Rescue Service recognises how important it is for us to make sure we are committed to reducing our carbon emissions and the impact we have on the environment in everything we do. This Carbon Reduction Plan (2020-2023) sets out how we will continue to improve the ways in which we use our resources to ensure the least harm to our environment. Each year this grows in importance as our awareness is raised on the critical importance of changing our behaviours with regard to climate change and sustainability. Legislation and regulation reflect this priority and we are committed to ensuring we meet our requirements and where possible exceed expectations.

Whether we are thinking of how to travel to work, what cup to drink from, how we design a new service, where we hold a meeting and the myriad of choices we make in our daily life, having sustainability underpinning every choice we make and every action we take must be integral to us delivering our vision, mission and strategic goals.

This year we have calculated our carbon footprint and the engagement with our staff has proved very useful in helping us to identify where we need to change our behaviour and how to do it. This has helped us to prioritise the key areas we want to focus on for the next year as outlined in the detailed action plan. We also recognise that many of the measures we plan to take to cut our carbon footprint will also help us operate more efficiently, cut costs and go some way to protecting us from the inevitable future increases to fuel and energy costs.

Using the information gathered and working with our dedicated staff, we will be able to set challenging targets and report our progress on the journey to become a carbon neutral organisation.

Introduction

It cannot be stated strongly enough that to meet the ambition of Welsh Government to be carbon neutral by 2030 will be incredibly challenging. It is not yet clear whether it is an achievable goal, however, it is an ambition that South Wales Fire and Rescue Service is prepared to pursue and in endeavouring to achieve the goal will take us further forward and improve the Service rather than choose to ignore the challenge. The evidence available shows that the scale of change is unprecedented, global and national system change will be needed to support local system change.

Therefore, this is not another service performance goal for members and officers, where control and accountability is clear, this is a challenge where the totality of the solutions needed is not clear and the approach taken will be emergent. We will need to put in place appropriate governance arrangements to ensure accountability, scrutiny and support through existing decision making processes.

Climate change is already upon us. While there are visible impacts of this in increased flooding, wind, rain and storm intensities, there are also hidden impacts such as droughts, biosecurity with the risk of invasive species, and seasonal changes to the food chains for species. The summer of 2018 was the joint hottest ever recorded in Wales, and summer temperatures could increase by up to 10 degrees centigrade in parts of the UK if the current trajectory global warming continues.

While certain parts of the world will have more severe and imminent impacts (such as low lying areas in South East Asia), Wales and the wider UK are not immune. These impacts only highlight the need to act now on reducing our emissions. The details set out in the Action Plan require us to make good decisions about what to invest in, therefore we must understand the consequences of climate change with and without action.

The World Health Organisation identifies climate change as the greatest threat to global health in the 21st century. The impacts for South Wales, although less than for some other parts of the world, will still be significant. There will be an increase in heat wave days and a longer heat wave season, resulting in greater risk of wildfires and there will also be periods of heavier rainfall increasing the likelihood of widespread flooding. Such events will have significant impact on our Service therefore it is important that we act and set an important example by reducing our impacts on the environment.

Context

Climate change is a real and immediate threat for us all. Carbon dioxide (CO₂) levels have already reached their highest level for almost half a million years and are rising faster than ever. Like all public sector organisations, South Wales Fire and Rescue Service has a key role to play in mitigating the effects of climate change – both as a community leader and through the services we provide. The Service is a considerable consumer of energy and a direct source of CO₂ emissions arising from our activities and buildings. South Wales will not be immune to the impacts of climate change and therefore we need to act now to adapt and manage risks to service delivery, local communities, infrastructure, businesses and the natural environment. The Authority's climate change challenge falls into:

- Cutting the Service's carbon footprint;
- Preparing for the impacts of a changing climate.

Aside from the moral and environmental case for taking action to tackle climate change there are many other drivers for the Service to address this issue.

These include:

- ❖ the considerable scope for more efficient use of energy to realise cost savings
- ❖ the future impact of the increase in energy and fuel prices

Specifically these will have three main impacts on the Service:

- Service delivery;

Climate change has a significant effect on the services we provide and how we provide them. We have already seen the impacts of prolonged periods of grass fires during the summer of 2018 and the severe flooding across many parts of South Wales early in 2020. Therefore we need to ensure that the way we deliver our services has the least impact on the environment.

- Financial;

Projects to reduce carbon will more often than not come with the requirement of financial investment. However, the majority of schemes, especially those that target energy and fuel efficiency lead to savings which very often outweigh the initial costs.

- Reputational and the Service's role as a community leader.

As a community leader with an outstanding reputation with the Service has a significant role to play in ensuring all of our communities lead lower carbon lifestyles. The Service recognises that it cannot do this in isolation but by promoting best practice and working with others in all sectors we can make positive impacts for the future.

Size of the Challenge

For us to truly know the size of the challenge we face as an organisation we have calculated our Carbon footprint for the first time. We have previously fallen below Welsh Government thresholds for reporting but with this threshold being removed we must now calculate our impact and therefore take appropriate actions to reduce our impact.

Carbon footprint is expressed as CO₂e – Carbon Dioxide Equivalent.

The Services' carbon footprint is based on the energy use and fuel use from our estate, activities undertaken in our service provision and the waste we generate. It also includes an estimate of the emissions from our supply chain and staff business and commute mileage, a proportion of business travel on public transport.

Figure 1, below, gives a breakdown of the CO₂ emissions for 2018/19 of the various different areas included

Fleet	2,655 tonnes CO ₂ e
Energy	1,848 tonnes CO ₂ e
Procurement Supply chain	5,283 tonnes CO ₂ e
Business Mileage	154 tonnes CO ₂ e

What have we done already?

We have already started our journey towards becoming net carbon neutral by focusing on reducing our energy consumption since 2011. Our electricity consumption has reduced by 20% and gas consumption by 25% (April 2011 to March 2019). There has also been a transformation of our energy sector, the Welsh National Procurement Service contract for electricity confirms 100% of our electricity is from renewable energy supply from 2018/19.

We have also undertaken the following projects to support further energy reductions.

- Installed LED lighting at our HQ site and the majority of our stations
- Installed Building Management Systems to monitor and control energy usage across our estate
- A programme of boiler replacements has been completed to remove outdated, inefficient systems.
- Appliance bay doors have been linked to heating controls to automatically switch off when doors are open.

Strategic Approach

The Wellbeing of Future Generation (Wales) Act 2015 is at the heart of the decision making across the service. Our service priorities are aligned to the seven wellbeing goals and the five ways of working. One of our main strategic themes is 'Protecting the Environment' and outlines **“Executing our activities in a manner that helps sustain the planet for our future generations”** therefore to highlight our commitment to mainstreaming carbon reduction and protecting the environment we aim to inform our staff and our communities of our commitment and allocate sufficient resources to we deliver our objectives and achieve the challenging targets.

The objectives which have been identified for 2020/21 are

- **Reduce our energy use and explore alternative methods**
- **Reduce our usage of single use materials**
- **Explore the use of electric vehicles**
- **Reduce the amount of waste produced**
- **Conserving and enhancing our biodiversity and habitats**
- **Consider how our activities impact on the environment**
- **Leading our Communities by demonstrating and promoting good environmental practices**

To ensure sustainability is embedded into the Service and strategies and projects should support environmental impacts by considering energy efficiency, waste reduction, less travel and reuse and recycle products whenever possible.

How are we planning to deliver these priorities and reach our targets?

We will draw up action plans to address these key priorities and progress towards them will be measured annually.

How will we measure our success?

- Carbon emissions will reduce – reaching or exceeding our targets.
- Renewable and low carbon energy sources will increase reaching or exceeding our targets.
- Critical adaptation measures will be implemented.
- New planned developments/equipment/supplies will have minimal environmental impact.

The following principles will guide us on our journey through carbon reduction

Learn from others and become an example of best practice

Develop Carbon Reduction Projects that are effectively programme managed

Identify any risks and opportunities from carbon reduction plans

Embed Environmental implications into our decision making

Ensure sustainable procurement practices apply to all areas of the Service.

Encourage, engage and support others in reducing their carbon footprints

Raise awareness and commitment

Regular monitoring and reporting of our performance

Economy and efficiency will be achieved through our carbon reduction actions

Areas of Focus

Property

A large proportion of the opportunities for the Service to reduce the carbon footprint will come from how we operate and maintain our estate.

Fleet

The Service operates a fleet of over 367 vehicles of varying sizes to cover all the activities undertaken across the organisation. The majority of our vehicles are diesel fuelled engines but are modern and maintained to high standards ensuring the lowest possible emissions.

Travel

In undertaking our duties there are times when business travel is an essential requirement. The Service runs officers cars, a fleet of pool vehicles and 'grey travel' where personnel utilise their personal vehicle for business purposes. The Service will review the current requirements for business travel and seek to reduce the level of travel but also explore low carbon methods of transport.

Technology

New technology will play a significant role in developing and streamlining working practices, which will ultimately have a positive effect to reduce our carbon footprint. The ability for home and remote working supports less travel.

Procurement

The Service spends approximately £22m on goods and services each year. As highlighted in the carbon footprint of the service, many of our procurement decisions have the potential to reduce the CO₂ emissions. A sustainable procurement strategy, where environmental considerations are mandatory, is being implemented which will enable us to drive forward environmental improvements and use our buying power to

influence improvements across the markets that we use. Our procurement team will work with our suppliers and partner bodies such as the National Procurement Service and other Framework providers to ensure we embed improved environmental impacts.

Waste

Waste production adds to the level of carbon emissions and therefore our waste practices are influenced by the carbon reduction agenda. We need to reduce the volume of waste which is sent to landfill but also increase the volume of waste currently recycled.

Supplies and Equipment

The replacement of all supplies and equipment purchased by the service in future will need to ensure that a Whole life approach is taken. This ensures that all costs from purchase, use of the items through to disposal considerations are captured in the initial decision making process. Where possible recycled products will be used and at the end of life consideration given to reuse or recycle.

Water

Climate change is likely to increase water demand while shrinking water supplies. This shifting balance would challenge water managers to simultaneously meet the needs of growing communities, sensitive ecosystems, farmers, ranchers, energy producers, and manufacturers.

In some areas, water shortages will be less of a problem than increases in runoff, flooding, or sea level rise. These effects can reduce the quality of water and can damage the infrastructure that we use to transport and deliver water.

Finance

The economic climate has proved challenging for the whole of the public sector especially when considering the requirements to fulfil the potential to address environmental impacts. However with appropriate planning carbon reduction opportunities can be used in cost effective ways. Therefore we will seek opportunities for external funding streams, prioritise spend on measure which give high return (carbon and financial) and embed the principles of invest to save and the circular economy.

Behaviour Change

The majority of plans to reduce the Service's carbon footprint are viewed from an organisation level, individual behavioural changes from all of our personnel can make huge impacts on reducing our carbon emissions. Raising awareness of the scale of the challenge will act as a catalyst to encourage all personnel to support the organisation efforts by making small changes where they can to reduce energy, reduce travel, reduce waste and recycle more.

Delivery Targets

The proposed targets for reducing our CO2 emissions are from a baseline of 2018/19

2023 To reduce our carbon emissions by 25%

2030 To reduce our carbon emissions by 50%

2040 To reduce our carbon emissions by 65%

2050 To reduce our carbon emissions by 80%

Action Plan

ACTION	OWNER	DATE
Service Wide engagement and communication to raise awareness and encourage ideas for carbon reduction	Head of Finance, Procurement & property	July 2020
Improve recording, monitoring and reporting of all carbon impacts across the service	Head of Finance, Procurement & property	July 2020
Establish environmental champions for all departments and stations	Head of Finance, Procurement & property	September 2020
Include environmental impact awareness on induction and development programmes	Director of People Services	September 2020
Introduce an annual awards to recognise and reward greatest positive impact and most innovative solution	Deputy Chief Fire Officer	July 2021
Develop partnerships with Wales Energy Service, Cynnal Cymru and Centre for Climate Change and Social Transformation Centre (CAST) to raise awareness and develop further schemes to support the plan	Head of Finance, Procurement & property	December 2020
Complete the programme of LED light installation across all of our sites	Head of Finance, Procurement & property	September 2020
Work with the Carbon Trust to undertake energy audits on our site to identify most suitable alternative power supplies e.g. Solar panels	Head of Finance, Procurement & property	October 2020
Complete the programme of smart meters for all of our sites	Head of Finance, Procurement & property	March 2021
Expand the trial for drying rooms technology to reduce energy on station	Head of Operations	July 2020
Review and improve our current waste/recycling collection provisions	Head of Finance, Procurement & property	September 2020
Explore the use of electric vehicles for the service light vehicle fleet	Head of Fleet & Engineering	December 2020
Provide electric vehicle charging points where possible on our sites	Head of Finance, Procurement & property	December 2020

Reduce the frequency of car journeys for work purposes	Director of People Services	September 2020
Promote and support car sharing opportunities	Director of People Services	September 2020
Develop a workplace travel plan, to include home working, remote working and usual place of work	Director of People Services	September 2020
Embed whole life cycle approach to all equipment and supplies purchased	Director of Technical Services	July 2020
Include environmental impact considerations into our procurement processes	Deputy Chief Fire Officer	July 2020
Move towards a paper free environment	Deputy Chief Fire Officer	July 2020
Maximise external funding opportunities to facilitate carbon reduction/environmental projects	Head of Finance, Procurement & property	March 2021
Revise our Asset Strategy for estates to include greater energy efficiency and CO2 reductions	Head of Finance, Procurement & property	September 2021
Implement grey water harvesting system at HQ fleet for vehicle wash facility	Head of Fleet & Engineering	December 2021
All personnel to be issued with reusable aluminium water bottles to reduce single use plastic	Head of Ops Risk Management	July 2020
Allocate specified reserves for use on carbon reduction projects	Treasurer	September 2020
Evaluate further use of technology to support efficient processes which will reduce the Services' carbon footprint	Head of ICT	March 2021
Encourage greater use of video conferencing for meetings	Head of ICT	July 2020

Next Steps

The carbon reduction plan and identified actions are a very good starting point on our journey to becoming carbon neutral. The plan will continue to be a live document over the coming years and updated as new information and ideas emerge. The following areas will be the next steps for the coming year.

- Fire and Rescue Authority approval of the Carbon Reduction plan 2020-2023
- Publication of our carbon footprint and progress against actions taken so far
- Comply with the Welsh Government's Carbon Neutral ambitions
- Create a cadre of Green Champions across all areas of the Service to promote behaviour change
- Carry out climate impact assessments for all of our functions
- Support our supply chain to better understand their carbon footprint and the impact that has on our Service

The carbon reduction plan will be reviewed and reported on at least annually and refreshed regularly if necessary to ensure inclusion of the latest information and that the targets set remain valid.

Ownership of Carbon Reduction Plan

The Service Senior Management Team will:

- Champion and provide leadership on climate change
- Set and review the reduction targets
- Prioritise projects and measures
- Monitor progress towards targets
- Remove obstacles to the successful implementation of carbon reduction projects
- Review and champion plans which require financial investment
- Ensure a coordinated approach to projects to deliver our carbon reduction objectives and targets