

Public Health Wales

Decarbonisation Action Plan

2022-2024



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1 Key Terms and Definitions

The following key terms are used in this Decarbonisation Action Plan. For reference a definition of each term has been provided in the following table.

Key Term/Acronym	Definition
Carbon Dioxide Equivalent (CO₂e)	Standard unit of measurement of Greenhouse Gas (GHG) emissions used to compare relative impacts of different GHG's based upon their global warming potential.
Decarbonisation	The process of first reducing then removing, GHG emissions released into the atmosphere from our operations.
Greenhouse Gas Emissions (GHG emissions)	Greenhouse Gas gases defined as gases which are capable of absorbing infra-red radiation (heat) from the sun, contributing to the Earth's greenhouse gas effect.
Net Zero Carbon	A balance between GHG emissions emitted into the atmosphere and the GHG emissions removed through removals and/or carbon offsetting
NHS Wales Decarbonisation Strategic Delivery Plan	Strategic delivery plan developed by NHS Wales covering 2021-2030, which sets out key initiatives and targets to deliver an ambitious but achievable reduction in carbon emissions.
Total GHG Emissions (per annum) (tonnes CO₂e)	An organisation/entity's annual GHG emissions total before adjustments are applied for sequestration or GHG removals, measured in tonnes CO ₂ e.
Well-being of Future Generations Act	Welsh Government Act which sets out seven well-being goals which are designed to improve the social, cultural, environmental and economic well-being of Wales.
Well-to-Tank GHG Emissions (tonnes CO₂e)	Emissions from the processing and refinement of fuels and energy consumed by reporting organisations.

Acronym	Definition
CCC	Committee on Climate Change
GHG	Greenhouse Gas
HEIW	Health Education Improvement Wales
NHS	National Health Service
NWSSP	NHS Wales Shared Services Partnership
PHW	Public Health Wales
T&D	Transmission & Distribution (electricity)
UNFCCC	UN Framework Convention on Climate Change
WTT	Well-to-Tank GHG Emissions

2 Introduction

This document details Public Health Wales's Decarbonisation Action Plan for 2022 – 2024. It sets out our key actions and strategy to support our journey to becoming an operationally Net Zero organisation by 2030. Achieving Net Zero means reaching a balance between Greenhouse Gas (GHG) emissions emitted into the atmosphere and the GHG emissions removed through removals and/or carbon offsetting. To reach Net Zero, GHG emissions from buildings, transport, service delivery, and procurement will have to decarbonise in alignment with NHS Wales Decarbonisation Strategic Delivery Plan and the Welsh Public Sector.

Public Health Wales's Decarbonisation Action Plan has been co-produced, incorporating feedback and suggestions received through engagement with representatives across all our directorates. Our Decarbonisation Action Plan outlines a number of key actions identified within five Activity Streams to support the decarbonisation of our operations:

-  **Carbon Management**
-  **Buildings, Estates Planning & Land Use**
-  **Transport & Travel**
-  **Procurement**
-  **Approaches to Healthcare & Future Service Provision**

It is well documented that there is a significant link between the impacts of Climate Change and the health and wellbeing of people. Public Health Wales understands that we have a key role to support NHS Wales's Decarbonisation Strategic Delivery Plan.

Public Health Wales would like to acknowledge the support we have received from GEP Environmental Ltd in developing this Decarbonisation Action Plan, facilitating the cross departmental workshops and in collating the data collected in support of the development of our Action Plan.

2.1 Our Successes

Public Health Wales (PHW) has delivered a number of projects over recent years to reduce our environmental impact.

Facilities and Estates have been working across our estate to replace lighting with LEDs, particularly in our older buildings, and to manage the installation of electric vehicle charging infrastructure across multiple sites to support future service delivery. To date, lighting has been replaced in multiple sites which has led to reductions in our energy costs and associated carbon footprint. PHW has also obtained funding to replace our Abdominal Aortic Aneurysm (AAA) Screening fleet with electric vehicles to further reduce our GHG emissions. Due to current lead in times for vehicles, these were not procured in 2021, however this is a key priority for next year sitting alongside the transition of our fleet to electric and hybrid vehicles.

The work of our Health and Sustainability Hub has encouraged behavioural change to benefit the health and well-being of our staff, partners and wider community. Working with Cynnal Cymru-Sustain Wales, we have developed the 'SIFT' Healthy Environment Workshop. This two-hour virtual workshop enables workplace teams and individuals to identify and reduce their environmental impacts. The workshop and accompanying toolkit focuses upon three main themes: decarbonisation, biodiversity and resource efficiency (zero waste), and is freely available to share with public bodies in Wales.

As 'champions of education', PHW invited staff from across NHS Wales to attend 'Call to Action' online workshops during January-February 2022. These online workshops have been designed to help identify actions to reduce our impact on Climate Change to support the

transition to a healthy, low carbon Welsh NHS. We are also expanding training provision to offer Carbon Literacy training to 150 members of PHW Wales staff during March-April 2022.

To support our internal decarbonisation actions, we have created a staff network to support sustainable development. Our Green Advocates provide informal quarterly lunchtime sessions to enable discussion, learning, and action at team and individual level. We have also developed various e-guides and resources to support staff embedding sustainable behaviour to help reduce their emissions in work, and at home. This includes the 'Be the Change Sustainable Home and Agile Working' e-guide and the 'Well-being Goals Challenge'. PHW publishes quarterly editions of our 'Green Opportunities' e-brief. This brief captures learning and identifies best practice to support the implementation of the Well-Being of Future Generations Act through a green recovery from COVID-19; given the challenges and inequalities which the pandemic has further exposed.

Recognising the impact that waste from our operations has upon our environmental footprint, PHW has made a commitment to go 'plastic free' by 2023, which will include sourcing plastic alternatives and reducing single use plastic items across the organisation. In addition, PHW also signed the Cardiff Public Service Board Healthy Travel Charter in April 2019, which commits PHW to reduce unnecessary travel and promote healthy travel across the area.

2.2 Where are we now?

2.2.1 Climate Emergency & Net Zero Wales

Climate Change - The Global Context

Action on an international scale is required for any level of meaningful change to the Earth's climate. The 2030 climate and energy framework developed by The United Nations (UN) aims to reduce greenhouse gas emissions and increase momentum towards sustainable development and Climate Change resilience through the UN Sustainable Development Goals and the UN Framework Convention on Climate Change (UNFCCC) Paris Agreement 2015.

Global average temperatures have risen by over 1°C since the pre-industrial period, and by 0.2°C compared to 2011-2015, with further inevitable rises projected to occur as a result of carbon already emitted. Increased climatic consequences are already prevalent due to this rise, highlighting the urgency of acting to drastically reduce global carbon emissions. If we don't act now, the threat we face becomes critical as we risk global temperatures rising above a tipping point resulting in irreversible changes to our planet.

Climate Change – The National Context

Wales and the UK as a whole is already experiencing significant climatological impacts as a result of Climate Change. The Committee on Climate Change's (CCC) Third Independent Assessment of Climate Change Risk¹ report highlights that the UK as a whole has been impacted by higher average annual temperatures (0.3°C increase per decade since 1980), sea level rise (currently estimated to be rising at 2.5cm per decade), and significant increases in temperature and precipitation

extremes. Most noticeably this has been demonstrated with the milder/wetter winters, warmer/drier summers, and increased extreme weather events (e.g. flooding, heatwaves, storms) occurring in the UK.

The biodiversity of the UK is also under threat from the impacts of Climate Change. Across the UK, different habitats and ecosystems are at risk from a range of factors including rising sea levels, extreme weather, and temperature extremes. This has led to a 40% decline in UK native species with 25% of mammals being at risk of extinction.

The already highly variable nature of the UK's climate poses a significant challenge for health and social care systems; not only in maintaining high-quality service provision for an ageing population but also through additional financial burdens from adaptation and mitigation of the impacts of Climate Change.

Climate Change – impacts on health and delivery of healthcare

The World Health Organisation (WHO) identifies that Climate Change is the most significant threat to the health of humanity on a global scale. The impact of increased frequency of extreme weather coupled with detrimental impacts of increased pollution on health is already resulting in a significant surge in pressures upon our existing health systems across the World. The WHO estimates that Climate Change will lead to around 250,000 extra deaths per year globally from 2030, and that the direct annual cost impact will be \$2-4 billion over the next decade²

As a result of Climate Change by 2050 average annual temperatures in Wales are projected to rise by 1.2°C, summer rainfall is expected to decrease by 15%, and winter rainfall is expected to increase by 6%³. Health related impacts upon our population are likely to range from increased heat-related and air quality illnesses, disruption to accessing healthy foods, through to disruption of healthcare services due to increased levels of extreme weather. The following challenges related to health and the delivery of healthcare in the UK highlight key strategic priorities which need to be addressed in future delivery strategies for the health and social care sector⁴:

- Higher temperatures leading to both increases in heat-related deaths and illness. Patients exposed to high temperatures within hospitals, care homes, and home-based care settings will become more prevalent as temperatures continue to rise and heatwaves become more common.
- Health and social care assets such as hospitals, GP surgeries, care homes and emergency service settings will become increasingly exposed to flooding and extreme weather, leading to disruptions for healthcare delivery.
- Increased demand pressures from a rise in vector borne diseases (from parasites, viruses and bacteria) and illnesses from poor air and water quality within our local communities.
- Supply chain disruption denying access to healthy and affordable food, leading to poor health and food insecurity within our local communities.
- Existing health and economic inequalities mean that health risks from Climate Change are more likely to greatly impact lower income communities where poor health is already recognised as being endemic.
- Loss of biodiversity and ecosystems affecting both the physical health, mental health, and well-being of our local communities.

Reducing our carbon emissions and taking action on climate change will help bring about direct improvements for public health and health equity.

2.2.2 Welsh Government Climate Emergency

In 2019, Welsh Government became one of the first nations in the UK to declare a Climate Emergency, committing to achieve a carbon neutral public sector by 2030. The Welsh Government supported its commitments to decarbonisation through its publication of 'Prosperity for All: A Low Carbon Wales'⁵ in 2019, which set out 100 policies and proposals to ensure the 2030 carbon emission ambitions are met. Net Zero Wales⁶, the Welsh Government's second emissions reduction plan for Carbon Budget 2 (2021 to 2025) sets the foundations to make Wales Net Zero by 2050 and the public sector Net Zero by 2030. The plan sets out 123 policies and proposals, alongside commitments and action from all parts of Wales.

The Partnership Council for Wales will head up the 'Team Wales' approach to allow public bodies, including NHS Wales to work together to reduce their carbon emissions. This will build on the good work already underway across Wales and encourage a partnership approach to maximise resources, avoid duplication and ensure communication is consistent.

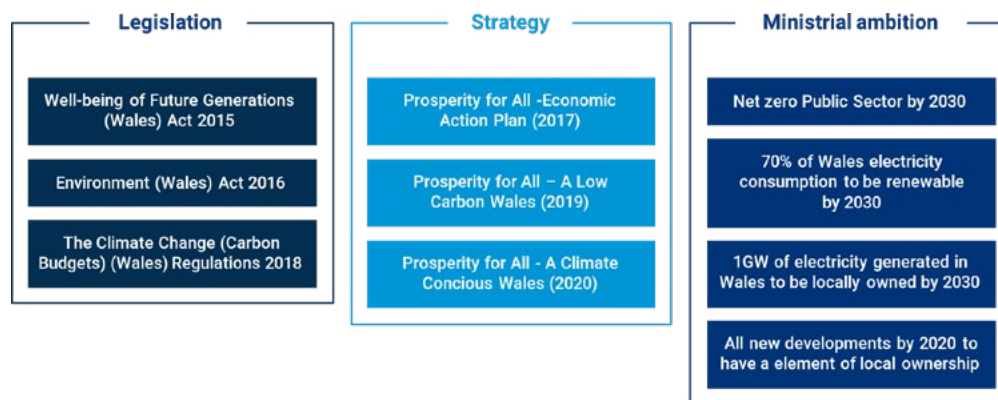


Figure 1 - Extract from the Welsh Government Climate Emergency Document

2.2.3 The Environment (Wales) Act 2016

The Environment (Wales) Act⁷ requires all public authorities to seek to “maintain and enhance biodiversity” within their operations. Under our ‘Making Space for Nature Plan’⁸ we recognise that ecosystems are vital for public health and well-being, providing our food and medicines, regulating our water and controlling disease, and supporting our leisure activities. Our health and well-being depend upon a healthy environment, which includes using our natural resources in a sustainable way and supporting our biodiversity.

2.2.4 The Well-being of Future Generations

The Well-being of Future Generations (Wales) Act 2015⁹ ('the Act') is about improving the recognised four dimensions of well-being in Wales - social, economic, environmental and cultural, captured in the seven well-being goals. The Act ensures our decarbonisation actions support the Welsh Government's well-being objectives and the 7 national well-being goals.

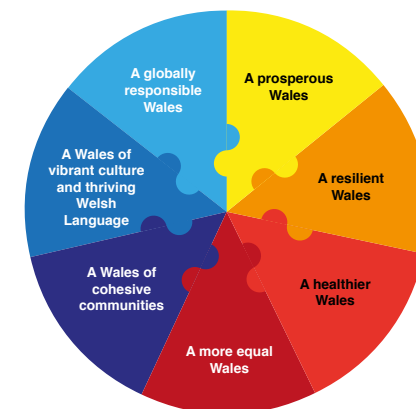


Figure 2 - The Well-Being of Future Generations Act's seven wellbeing principles

Public bodies, including Public Health Wales are required to embed the 'sustainable development principle' in everything they do and adopt the 5 Ways of Working to think more about the long term, work better with people and communities and each other, have a joined-up approach and look to prevent problems.

Climate Change is considered one of the greatest global challenges and requires innovation and collaboration to ensure the well-being of the future generations in Wales. Identifying opportunities and actions to reduce carbon emissions within our day-to-day activities will limit our contribution to Climate Change and thereby its consequences.

Public health Wales has embedded the five ways of working through the development of our Decarbonisation Action Plan:



Long Term: Each activity stream sets out appropriate long-term actions to address the challenges we face to achieve Net Zero, both now and in the future.



Integration: The five activity streams relate to each other and form an integrated approach to reduce our carbon emissions.



Prevention: We have identified specific actions to prevent emission levels from increasing and to reduce our impact on climate change to help prevent future health problems.



Involvement: We have co-developed our decarbonisation plan working closely with decarbonisation leads from all eight directorates with Public Health Wales and engaged with members of staff from across service areas within the eight directorates.



Collaboration: We aim to maximise delivery of the actions identified within our decarbonisation plan by working closely with partners, stakeholders and others across Wales. We will build on current partnerships and aim to develop new ones to maximise our efforts to reduce our emission.

2.2.5 The COVID-19 Pandemic

The COVID-19 pandemic has resulted in a change in many people's day to day activities, with an increase in home and agile working and a reduction in commuting. This has resulted in a shift in emissions from the office to private homes. Although these emissions have been shifted, they still need to be accounted for as part of our work to achieve Net Zero.

The pandemic has also drawn resources and capacity away from progressing action to respond to the climate emergency and reduce carbon emissions. As we work towards a sustainable green recovery, the climate emergency needs to be addressed.

2.2.6 NHS Wales Decarbonisation Strategic Delivery Plan

NHS Wales has a significant role to play in delivering decarbonisation across the Public Sector; whilst maintaining a safe, effective and high-quality health service. Published in March 2021, NHS Wales's Decarbonisation Strategic Delivery Plan (2021-2030)¹⁰ sets out key initiatives and targets to deliver an ambitious but achievable reduction in carbon emissions from NHS Wales's operations including:

- Buildings & Estates
- Transport
- Procurement
- Approaches to Healthcare

The delivery plan sets out 46 initiatives for decarbonising NHS Wales. One of the headline commitments requires 'All Health Boards and Trusts, including Public Health Wales, to develop Decarbonisation

Action Plans, which will be updated regularly and committed to within Integrated Medium-Term Plans on a 2-yearly basis.

NHS Wales Decarbonisation Target	Emissions (tCO ₂ e)	Percentage reduction from 2018/19	Cumulative savings from initiatives will total (tCO ₂ e)
2025	845,600	-16%	459,000
2030	661,500	-34%	1,982,500

Figure 3 - NHS Wales Decarbonisation Strategic Delivery Plan Targets

2.2.7 The Role of Public Health Wales

As a key provider of NHS services across Wales, Public Health Wales has an important role to play in supporting decarbonisation activities. We will align our own ambition with key priorities and targets set out in the NHS Wales Decarbonisation Strategic Delivery Plan to ensure we reduce our carbon emissions to work to achieve Net Zero emissions.

Public Health Wales will work in co-ordination with our partner NHS Trusts and Health Boards and with NHS Wales's Shared Services Partnership (NWSSP), to deliver our Decarbonisation Action Plan. We recognise that Public Health Wales can also provide an advisory role to support the wider delivery and inform future development of NHS Wales's Decarbonisation Strategic Action Plan.

2.2.8 Sustainable Recovery from the Pandemic

To support NHS Wales's recovery from the COVID-19 pandemic, the Welsh Government has set up a Green Recovery Taskforce, the objectives of which are closely aligned with the overall aims of NHS Wales's Decarbonisation Strategic Delivery Plan. Public Health Wales will identify new opportunities to support the Green Recovery through the implementation of our Decarbonisation Action Plan.

Public Health Wales is currently undertaking a separate research project to understand the impact the pandemic has had upon our Greenhouse Gas (GHG) emissions for 2020-21, and consideration of how future approaches to healthcare may support the implementation of our Decarbonisation Action Plan.

The NHS Wales Decarbonisation Strategic Delivery Plan highlights that 'the NHS must act now to reduce its environmental impact, play its part, and be an exemplar in leading the way to reduce emissions'.

3 Our Journey to Net Zero

Our Decarbonisation Action Plan will take a theme-based approach, closely aligned with NHS Wales's Decarbonisation Strategic Delivery Plan, covering five activity streams:

-  **Carbon Management**
-  **Buildings, Estates Planning & Land Use**
-  **Transport & Travel**
-  **Procurement**
-  **Approaches to Healthcare & Future Service Provision**

Each activity stream depicts the level of ambition, targets, specific action areas and subsequent actions that will enable us to meet our reduction aims, to support our journey to becoming a Net Zero carbon organisation. The action areas within each activity stream incorporate the relevant initiatives and targets outlined within the NHS Wales Decarbonisation Strategic Delivery Plan 2021-30.

The five activity streams cover a variety of directorates and service areas, allowing the Decarbonisation Action Plan to be broken down into manageable action areas, which can be carried out by the relevant service areas and directorates, allowing for collaboration and accountability across the relevant directorates. The actions included within each activity stream have been developed through significant internal engagement through a series of decarbonisation workshops, which included representation from all directorates within Public Health Wales.

There is no trajectory showing how we will reach Net Zero in this 2022-24 plan as well as no specific targets for PHW. These will be detailed in our updated 2024-26 Decarbonisation Action Plan once we've engaged with directorates and service areas in more detail and established resources and capacity to deliver specific actions.

Delivery of actions under the five activity streams will also support the implementation of key national sustainability legislation within Public Health Wales, including the Well-being of Future Generations (Wales) Act, the Environment Wales Act, A Healthier Wales and the Active travel (Wales) Act.

Activity Streams	Context
 <p>Carbon Management</p>	<p>Approach to carbon management across Public Health Wales’s operations and supporting partner Trusts & Health Boards take steps to measure, manage and reduce emissions from operations and service delivery. Includes ongoing proactive communication on the progress of our own and NHS Wales’s decarbonisation actions.</p>
 <p>Buildings, Estate Planning & Land Use</p>	<p>Reducing and removing emissions from our existing property portfolio through implementing Net Zero carbon requirements for new build and major refurbishment projects. Improving our approach to strategic estate planning and use of our buildings. Develop our approach to host renewable energy generation within our estates.</p>
 <p>Transport & Travel</p>	<p>Reducing and removing emissions of our vehicle fleet and supporting our staff to utilise sustainable travel options for business travel and commuting. Supporting staff to utilise active travel to reduce GHG emissions and improve health and wellbeing.</p>
 <p>Procurement</p>	<p>Improvements to carbon accounting to help identify GHG emissions hotspots within our supply chain and inform a programme of supplier engagement to reduce emissions (decarbonise) our supply chain.</p>
 <p>Approaches to Healthcare and Service Delivery</p>	<p>Adapting our approach to delivering services to maintain high quality, effective and sustainable healthcare provision aligned with NHS Wales commitments:</p> <ul style="list-style-type: none"> • Approach to agile working or our ‘work where it works best’ approach • Approach to climate and decarbonisation education • Approach to reducing carbon emissions from waste • Approach to reducing emissions by preventing ill health

Table 1 - List of activity streams for actions listed within this Decarbonisation Action Plan

3.1 Public Health Wales 2019-20 GHG Emissions

Public Health Wales’s GHG emissions footprint was calculated for the 2019-20 financial year aligned with reporting requirements set out by NHS Wales. Public Health Wales’s emissions for this period were determined to be **12,568,999 kilograms CO₂e**. This will act as our baseline which will be used to inform target setting and act as benchmark to monitor the progress of our Decarbonisation Action Plan.

The approach to decarbonising our emissions sources will differ based on the level of direct control and ownership of each GHG emissions source. Our GHG Emissions Baseline includes the following sources of GHG emissions:

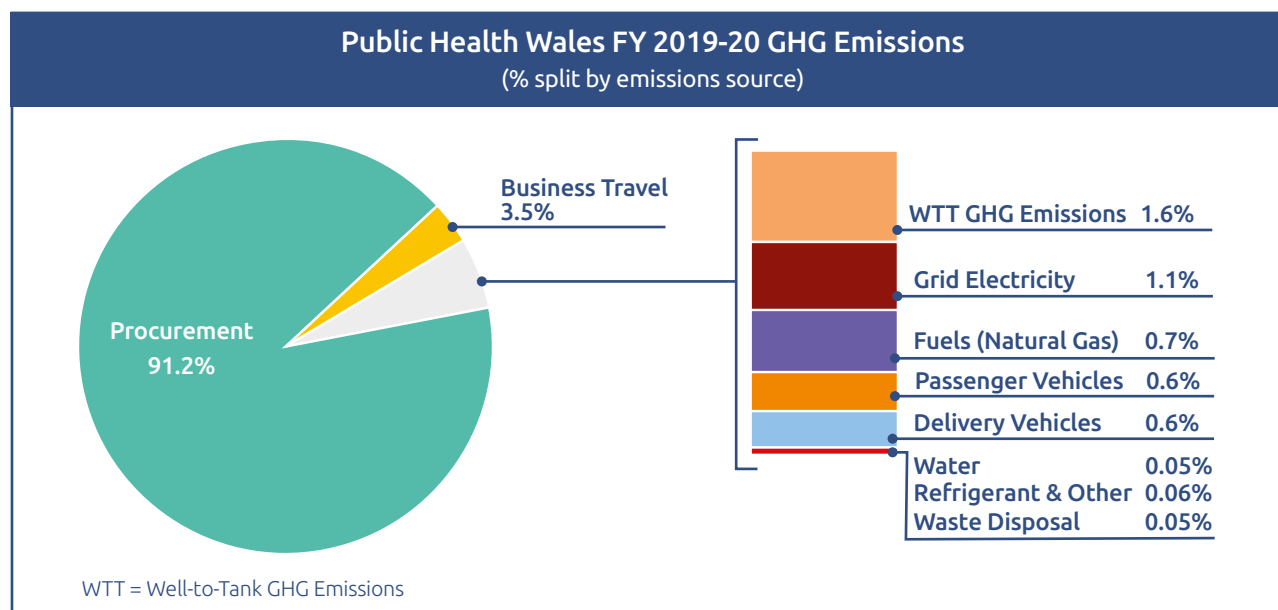
Scope 1: GHG emissions from operations under direct control of Public Health Wales including: fuel combustion (e.g. natural gas in boilers), fuel use in our fleet vehicles, and fugitive emissions from refrigerants and other gases used across our operations.

Scope 2: GHG emissions from the generation of purchased grid electricity used by Public Health Wales across our sites.

Scope 3: GHG emissions resulting from wider Public Health Wales operations including business travel, procurement, water consumption, and waste disposal and the procurement of goods and services.

Table 2 (top) & Figure 4 (below) - Split of Public Health Wales's baseline GHG emissions for the 2019-20 reporting year split by emissions source.

Reporting Scope	GHG Emissions Source	2019-20 GHG Emissions (kgCO ₂ e)	Percentage of GHG Emissions (%)
Scope 1	Fuels (Gas Oil & Natural Gas)	227,907	1.8%
	Passenger Vehicles	77,770	0.6%
	Delivery Vehicles	14,337	0.1%
	Refrigerants & Other	7,308	0.06%
Scope 2	Grid Electricity	106,828	0.9%
Scope 3	Business Travel	441,834	3.5%
	Well-to-Tank GHG Emissions ¹	196,715	1.6%
	Procurement	11,458,708	91.2%
	Grid Electricity (T&D)	25,310	0.2%
	Water	6,581	0.05%
	Waste Disposal	5,700	0.05%
Total GHG Emissions (kgCO₂e)		12,586,999	-



Our GHG emissions footprint is comprised of direct and indirect GHG emissions sources. The approach to decarbonising these emissions sources will differ based on the level of direct control and ownership Public Health Wales has over each GHG emissions source.

¹ GHG emissions from the processing and refinement of fuels and energy used by PHW. Split between site and transport sources.

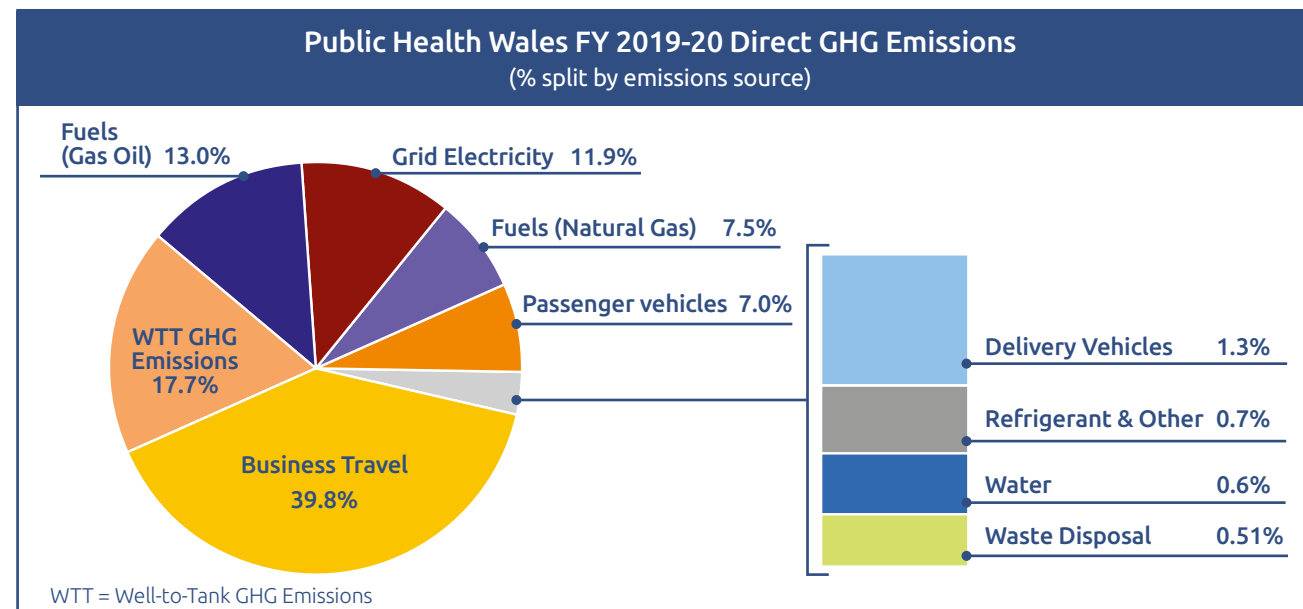
3.2 Public Health Wales 2019-20 Direct GHG Emissions

Our direct GHG emissions represent those sources over which PHW has the most control, and those where we will have the greatest impact in reducing our GHG emissions. PHW's direct GHG emissions footprint for 2019/20 is **1,110,291 kilograms CO₂e** and includes the following emissions sources:

- Utilities consumption across our sites (natural gas, electricity, other fuels, water),
- Operation of PHW's vehicle fleet
- Business Travel
- Disposal & treatment of waste,
- Well-to-Tank GHG emissions

Table 3 (top) & Figure 5 (below) - Split of Public Health Wales's baseline direct GHG emissions for the 2019-20 reporting year split by emissions source.

Reporting Scope	GHG Emissions Source	2019-20 GHG Emissions (kgCO ₂ e)	Percentage of Direct GHG Emissions (%)
Scope 1	Fuels (Gas Oil & Natural Gas)	227,907	20.5%
	Passenger Vehicles	77,770	7.0%
	Delivery Vehicles	14,337	1.3%
	Refrigerants & Other	7,308	0.7%
Scope 2	Grid Electricity	106,828	9.6%
Scope 3	Business Travel	441,834	39.8%
	Well-to-Tank GHG Emissions	196,715	17.7%
	Grid Electricity (T&D)	25,310	2.3%
	Water	6,581	0.6%
	Waste Disposal	5,700	0.5%
Total GHG Emissions (kgCO₂e)		1,110,291	-



3.3 Public Health Wales 2019-20 Indirect GHG Emissions

Our indirect GHG emissions represent those sources which PHW can apply its influence to help to reduce our GHG emissions footprint. PHW's indirect GHG emissions footprint for our 2019/20 baseline year is **11,458,708 kilograms CO₂e.**

Our indirect GHG emissions footprint is comprised of GHG emissions from Procurement of goods and services. To demonstrate the relative scale of our direct and indirect GHG emissions footprints, a comparison has been provided in the chart below.

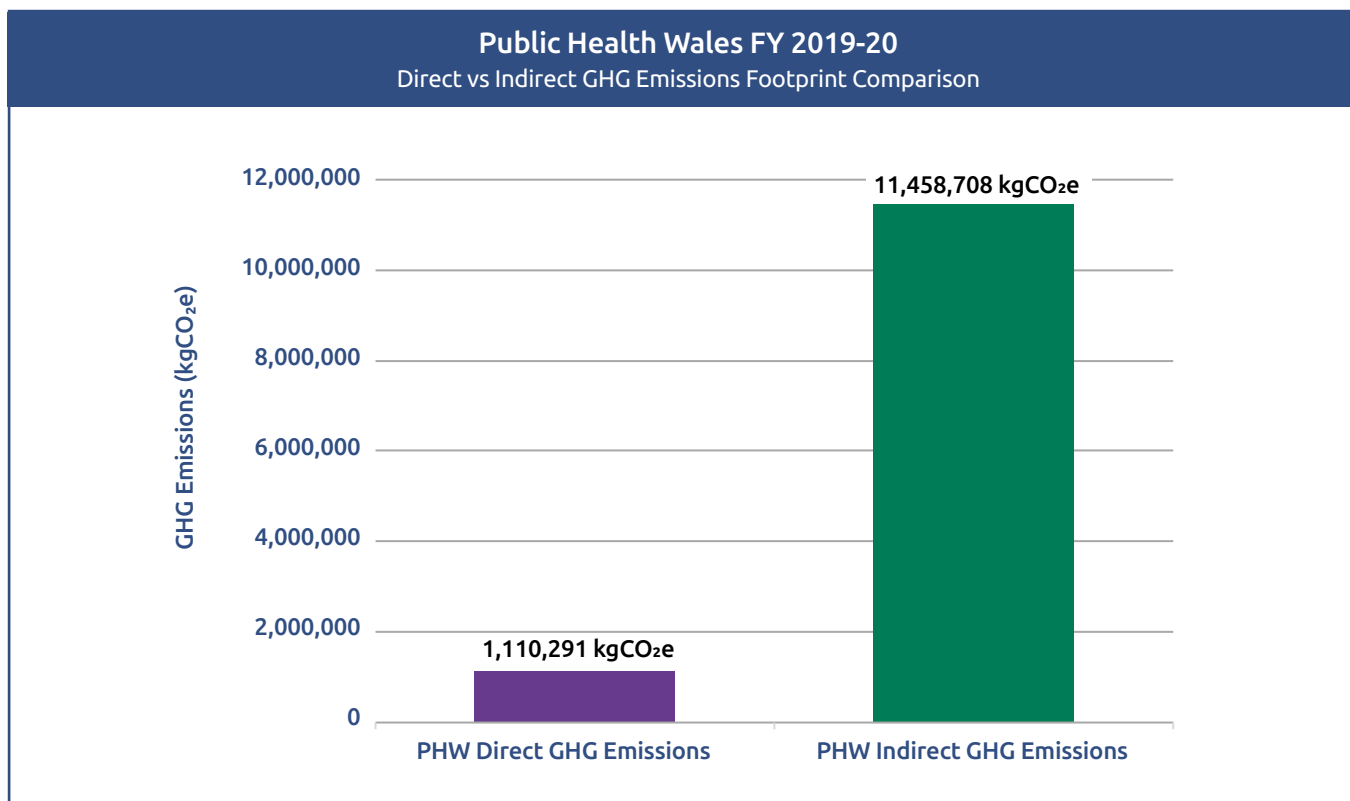


Figure 6 - Comparison of Public Health Wales's direct and indirect GHG emissions for the 2019-20 reporting year.

4



Activity Stream 1 - Carbon Management

Public Health Wales commits to introducing best practice carbon management processes which form a solid foundation to enable successful implementation of our Action Plan. Best practice carbon management goes beyond the monitoring and reporting of our GHG emissions to include the development and implementation of decarbonisation action plans, target setting, and supporting behavioural change in relation to decarbonisation.

NHS Wales highlights the importance of dedicating resources within Health Boards and NHS Trusts to deliver best practice carbon management and to progress our Decarbonisation Action Plan. We recognise that there needs to be a dedicated shift within management processes to place greater emphasis on decarbonisation across our operations; facilitated by integrated carbon management between our internal directorates.

4.1 Reviewing our Action Plan

As per Public Health Wales's responsibilities under NHS Wales's Decarbonisation Strategic Delivery Plan, we will complete a bi-annual review of our Action Plan to ensure we are on track to achieving our Decarbonisation Action Plan. Following the completion of each review we will submit progress reports to NHS Wales which will help to inform future updates to NHS Wales's Decarbonisation Strategic Delivery Plan.

4.2 Proactive Communication

The role Public Health Wales plays in the delivery of NHS services across Wales, gives us the opportunity to work closely with our partner Health Boards, NHS Trusts, and Health Education Improvement Wales (HIEW) to support decarbonisation agenda as well as promote NHS Wales's Decarbonisation Strategy to the general public. This is seen as an important element of our carbon management process as well as supporting NHS Wales's approach to the future delivery of healthcare to our local communities.

An upskilled workforce will be needed to drive and implement the actions outlined in this Decarbonisation Action Plan. They will need to be supported to learn, innovate and embed carbon reduction into everyday activities.



4.3 Key Actions:

Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Management	Implement best practice carbon management within Public Health Wales to support the delivery of our Decarbonisation Action Plan	Continue to calculate our GHG emissions footprint following current NHS Wales and Welsh Public Sector Net Zero Carbon reporting guidelines.	Facilities/ Estates	Ongoing	2022
		Identify gaps in data and allocate resource to capture and analyse missing data	Individual Service Areas	2023	
		Utilise our annual GHG emissions footprint to identify emissions reduction priorities and to inform the development of interim milestones in-line with NHS Wales Decarbonisation Strategic Delivery Plan targets.	Individual Service Areas	Ongoing	2022
Management	Implement best practice carbon management within Public Health Wales to support the delivery of our Decarbonisation Action Plan	Implement a bi-annual review process for our Action Plan and for submitting supporting progress reports to NHS Wales.	Facilities/ Estates – working with All Service Areas	2022 - ongoing	2022
		Review and update all current relevant policies to incorporate sustainable development, to support and embed carbon reduction policies, to ensure Public Health Wales makes environmental influencing a strategic priority to aid the delivery of our Decarbonisation Action Plan. Relevant Policies include: Travel, Procurement, Medical Devices, DSE, Statutory and Mandatory Training, Supporting Learning and Development, Information Governance, Environmental, Waste Management, Water Management, Lease Car, Decision Making Framework. Hold a planning session with Policy Leads to support the above action – to review and update all current relevant policies	Relevant Policy Holders for each policy Policy Leads	2024 (tbc)	2022



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Management	Implement best practice carbon management within Public Health Wales to support the delivery of our Decarbonisation Action Plan	Establish a Strategic Decarbonisation Delivery Group to coordinate delivery of the plan, with representation from Board/ Exec and representation from each directorate. The group will report to BET.	Exec lead for Decarbonisation	2022 (tbc)	2022
		Develop Terms of Reference for the Strategic Decarbonisation Delivery Group			
		Incorporate our Decarbonisation Action Plan within our Integrated Medium-Term Plan (IMTP). Establishing a series of review points to monitor implementation progress.	Exec lead for Decarbonisation	2022	2022
Management	Implement best practice carbon management within Public Health Wales to support the delivery of our Decarbonisation Action Plan.	Implement a research program into how other Public Health organisations are approaching decarbonisation of their own operations and supporting decarbonisation of national health bodies, to keep abreast of best practice innovation and guidance. Financial Implications	Health & Sustainability Hub	Ongoing	2022
		Identify relevant industry research bodies and forums (e.g., Welsh Health Environment Forum) which PHW can contribute to support Public Sector decarbonisation.	Health & Sustainability Hub	Ongoing	Ongoing
		Review and update current event planning guidelines to include specific requirements to make these as sustainable as possible.	Estates and Facilities All Service Areas	2023 (tbc)	2022



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Staff Engagement & Training	Facilitate staff engagement in carbon management and PHW's Decarbonisation Action Plan.	Develop regular communication channels to inform staff of carbon reduction and climate action	Communications	2022 – Ongoing (tbc)	-
		Implement a range of staff engagement programmes surrounding our Decarbonisation Action Plan including: <ul style="list-style-type: none"> • Internal 'green' engagement programmes • Inclusion of sustainable initiatives within teamwork plans • Best practice messages via PHW's e-bulletin service • Reach out to PHW staff with an interest in carbon reducing projects to be involved in case studies, podcasts to share with other staff • Development of supporting literature and resources to highlight everyday actions that can be undertaken to reduce GHG emissions • Roll out of SIFT Healthy Environment Workshop to every service area within the 8 directorates with PHW. We aim for 20% of our teams to undertake this workshop each year over the following five-year period. 	Health & Sustainability Hub	2022 – 2028	Ongoing
Staff Engagement & Training	Facilitate staff engagement in carbon management and PHW's Decarbonisation Action Plan.	Provide data to inform our emissions footprint, which can be easily accessed by all staff. Link to current Performance Assurance Dashboard (PAD) Data will include the following information: <ul style="list-style-type: none"> • PHW's annual GHG emissions footprint and progress against Key Performance Indicators (KPI's) • Details of ongoing carbon management and decarbonisation initiatives 	Facilities/ Estates	2022 – Ongoing	2022
Staff Engagement & Training	Facilitate staff engagement in carbon management and PHW's Decarbonisation Action Plan.	Develop a PHW Decarbonisation Intranet Page as part of the Hub's internal pages for staff. Publish Decarbonisation Action Plan on intranet site and PHW's external facing Website	Health & Sustainability Hub Communications	2022 – Ongoing (tbc)	2022

5 Activity Stream 2 - Buildings, Estate Planning & Land Use

Public Health Wales operates our services across Wales. Due to the variety of services we deliver for our local communities, we operate from a variety of different buildings including clinics, laboratories, and offices within larger hospital and health care settings, the majority of which are leased from partner Health Boards and Trusts within NHS Wales.

Emissions arising from Public Health Wales’s site-based operations equated to **264,771 kgCO₂e (23.8% of our total emissions)** within our 2019/20 reporting year, which includes emissions arising from utilities use (electricity, natural gas, onsite fuels, water consumption, waste generation, and fugitive emissions). The most significant source of GHG emissions from our site-based activities is associated with the use of electricity and gas use. The majority of our gas consumption arises from heating within our clinics and our Capital Quarter offices.

Public Health Wales recognises that reducing operational GHG emissions from our sites involves not only technical innovation but also effective estates planning to ensure we are operating as efficiently as possible.

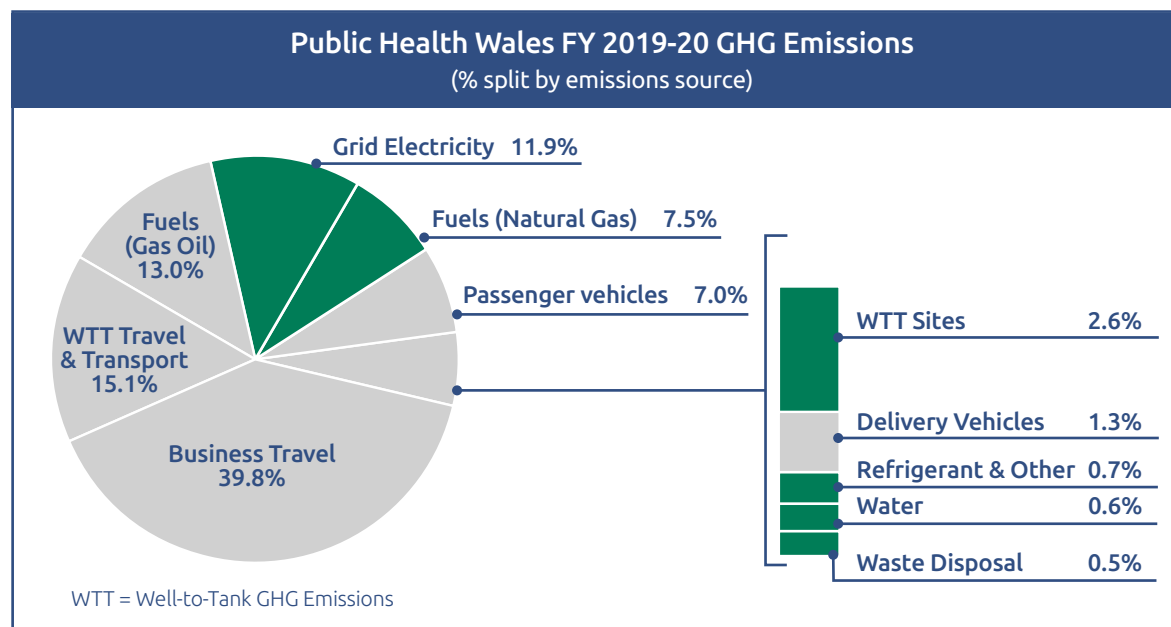


Figure 7 - Energy, waste, water, and refrigerant emissions arising from Public Health Wales’s buildings.



5.1 Buildings

To progress our Net Zero Carbon vision, we are focussing on our energy, water, and waste activities across our operations; in particular how we can move towards greener and cleaner technologies that reduce Greenhouse Gas (GHG) emissions, without compromising the delivery of our services. As a provider of NHS Wales’s screening and pathology services, our facilities are co-located within larger hospitals and clinics. This means that we are reliant on engaging with Health Boards to implement decarbonisation measures across their estate. Our role for these sites will be to work with property owners to encourage the uptake of low carbon technologies and initiatives to help progress our Net Zero ambition and to support the delivery of NHS Wales Strategic Decarbonisation Plan.

We have identified several actions to reduce GHG emissions associated with our building energy, waste, and water activities. These actions are focused on initiatives to improve the operational use of buildings as well as encourage partner Trusts and Health Boards to improve their existing buildings. Some actions will also support staff behaviour changes to help reduce emissions. Decarbonisation actions were determined during a series of workshops attended by staff members across a variety of departments. We have linked our decarbonisation actions with those listed within the NHS Wales Decarbonisation Strategic Plan. As we lease the large majority of our buildings, we have divided our decarbonisation actions between owned and leased buildings.

5.2 Key Actions:

Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Use of Buildings (Owned Buildings)	Undertake a decarbonisation assessment to identify decarbonisation technologies and initiatives for owned buildings	Undertake an appraisal to determine where our most inefficient buildings are across the estate and develop a plan to address this. Financial Implications	Facilities/ Estates	2022	2022
		Develop a carbon reduction plan which Identifies actions and suitable decarbonisation technologies to reduce emissions for energy, waste and water and resource use to lower GHG emissions.	Facilities/ Estates	2022-2024	2022



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Use of Buildings (Owned Buildings)	Undertake a decarbonisation assessment to identify decarbonisation technologies and initiatives for owned buildings	Develop a carbon reduction Implementation Plan for use by relevant internal service areas (i.e., facilities management, Procurement etc.) to implement actions and reduce emissions.	Facilities/ Estates All Directorates/ Internal Service Areas	2024 (tbc)	2023
Energy (Owned & Leased Buildings)	Optimise the use of heating within owned and leased buildings	Investigate the potential to reduce heating requirements within our owned and leased buildings through the implementation of measures such as: <ul style="list-style-type: none"> Improved heating controls, Zoning to rationalise heating use in low traffic areas. Financial Implications	Facilities/ Estates	2024	2023
Energy (Leased buildings)	Engage with landlords, which include other health Boards and Trusts, to collaborate on their existing decarbonisation programme	Engage with Health Boards and NHS Trusts to understand their current decarbonisation programme and support to identify further carbon reduction partnership actions where feasible.	Facilities/ Estates	2023 -2024	2022
		Work with Health Boards and NHS Trusts to increase staff awareness of their respective decarbonisation strategies.	Health & Sustainability Hub	Ongoing	2022 – Ongoing
Waste (All sites)	Improve waste management processes within current practices	Engage directly with staff across all departments to provide clearer direction on management of waste. Financial Implications	Facilities/ Estates Communications	2022 (tbc)	2022
		Review waste segregation signage to ensure that all waste streams are segregated effectively. Financial Implications	Facilities/ Estates	2022	2022



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Waste (All sites)	Improve waste management processes within current practices	Undertake a review of current waste disposal methods to determine whether more favorable methods can be utilised (i.e., recycling over landfill) where feasible. Financial Implications	All Directorates/ Service Areas – individual responsibility	2023 (tbc)	2022
		Ensure all PHW sites continue to comply with waste recycling requirements across Wales and meet national recycling targets.	All Directorates/ Service Areas – individual responsibility	Ongoing (tbc)	Ongoing
		All directorates to recycle or reuse of items (i.e., furniture) to reduce waste.	All Directorates/ Service Areas – individual responsibility	Ongoing (tbc)	2022
		Review current waste contractors to determine green credentials, disposal methods, and level of data availability.	Facilities/ Procurement	2022 (tbc)	2022
Staff Engagement	Develop a staff awareness programme for energy, waste, and water use	Incorporate details of significant energy and resource use areas within all building types and on initiatives to reduce these (turning off lights, circular economy principles etc.) within Carbon Literacy Training programme. Financial Implications	All Directorates/ Service Areas – individual responsibility	2022 - Ongoing (tbc)	2022 – onwards
		Develop and implement a series of energy and resource use engagement activities for staff members (e.g., Switch-off Campaigns) within PHW. Financial Implications	All Directorates/ Service Areas – individual responsibility	2023 – Ongoing (tbc)	2023
		Identify green champions (incorporated into people’s work roles), in every service area, within the workforce to provide awareness and engagement with decarbonisation initiatives across all levels of staffing.	All Directorates/ Service Areas – individual responsibility	2023 (tbc)	2022



5.3 Estate Planning

Public Health Wales leases the majority of our sites from other Health Boards and NHS Trusts, and therefore have limited ability to change or alter the buildings that we occupy. However, we can still take action to reduce our emissions through improved estates management, optimising our estate to ensure that the spaces we lease fit our needs now and into the future electric vehicle charging infrastructure has already been installed across multiple sites to support future service delivery and the transition to an electric/hybrid vehicle fleet in the 2022 financial year.

There is also the opportunity for partnership working with landlords. For example, lease arrangements for some sites would be in place for longer than the effective lifetime of installed renewable technology. Low carbon requirements will continue to be actively considered (particularly with effect to energy and water efficiency) by Public Health Wales within any new build/acquisitions made moving forwards. All new builds/acquisitions to our Estate will be assessed to ensure they have appropriate access requirements to maximise the potential for public travel and active travel options where feasible.

5.4 Key Actions:

Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Existing Estate	Review how we utilise our current owned and leased estate	Undertake an estate utilisation assessment to determine if our owned and leased areas are being fully utilised – linking to current 'Work How It Works Best' pilot	Facilities/Estates	2023	Ongoing
		Review current leasing and ownership arrangements within buildings that have under utilised areas to rationalise the estate, as and when leases expire.	Facilities/ Estates	2023	Ongoing
		Explore opportunities to share space within our estate with the wider public sector, through the creation of Hubs.	Facilities/ Estates	2023	2023



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescales
Existing Estate	Review our leased and owned space requirements	Assess changes which may be required to Working Environments to support new ways of working across the estate in line with the 'Work How It Works Best' (WHIWB) pilot	People & OD Facilities/ Estates	2023	2023
		Continue to investigate the use of local working hubs instead of larger office working spaces for certain facilities/services to reduce energy and resource use and commuting.	Facilities and Estates	2023	2022
		Review capabilities to expand the use of hot desks across our sites to reduce staff commuting, as part of the Work How it Works Best (WHIWB) pilot	People & OD Facilities/ Estates	2023	2022
Future Estate Planning	Future estate planning for owned buildings	Within any new build/new purchases, continue to ensure that low carbon requirements are considered – particularly with effect to energy and water efficiency and transport links. Financial Implications	Facilities/ Estates	Ongoing	Ongoing
	Future estate planning for leased buildings	As part of future planning give due consideration to whether it would be more effective to own buildings (rather than lease) to directly impact carbon intensity (also need to be consistent with long-term capital expenditure plans, linking in with WG).	Facilities/ Estates	Ongoing	Ongoing
		Develop prescreening criteria for all new leases to ensure office space is aligned to PHW's decarbonisation values (i.e., prioritise the use of low carbon technologies).	Facilities/ Estates	Ongoing	Ongoing
	Establish green criteria for all new builds and major refurbishments	Identify a set of new build and refurbishment criteria to improve the environmental and carbon performance of future buildings.	Facilities/ Estates	Ongoing	Ongoing



5.5 Land Use

Public Health Wales does not own or manage any land. We will work with other Health Boards and NHS Trusts to support existing or future land management practices which enhance the storage of carbon (carbon sequestration potential) of the land that we occupy. We have identified the following actions support the enhancement of green spaces owned by our partner Health Boards and NHS Trusts to reduce GHG emissions and to promote biodiversity.

5.6 Key Actions:

Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescales	NHS Wales Decarbonisation SDP Timescales
Green Spaces	Leased sites	No actions for 2022-24			

6 Activity Stream 3 - Transport & Travel

Public Health Wales directly owns and operates a 40 strong fleet of vehicles. Our fleet is made up of mobile screening vans, company and pool cars which are used to support the provision of NHS services across Wales. Our fleet completed over 348,000 miles during our 2019/20 reporting year and represents one of the most significant environmental impacts of our service provision.

In addition to our direct transport impacts, business travel completed by employees using their own vehicles (Grey Fleet) and public transport represents another key GHG emissions reduction priority. Public Health Wales recognises that it has an important role to play in decarbonising its vehicle fleets as well as supporting our employees to make more sustainable transport choices.

In Wales, the burden of long-term air pollution exposure is estimated to be the equivalent of 1,000 to 1,400 deaths each year; disproportionately affecting the poorest in our local communities¹¹. Reducing exhaust emissions from our vehicle fleet will help not only to reduce our GHG emissions but will also contribute to improving air quality within the communities we serve.

GHG emissions resulting from Public Health Wales's transport activities totalled **845,520 kilograms CO₂e (76.2% of total GHG emissions)** for the 2019/20 reporting year. This includes emissions from the operation of our vehicle fleets, and wider business travel activities. The majority (52.3%) of our transport emissions result from travel completed by our Grey Fleet. Unlike our owned fleets where we can directly intervene to reduce emissions, reducing emissions from our Grey Fleet requires Public Health Wales to support our staff to adopt sustainable transport methods and provide incentives to help the transition to electric/hybrid vehicles.

Public Health Wales recognises that the availability of infrastructure to support the full-scale implementation of electric vehicles is currently limited. In the short term this will provide a challenge for supporting our operations in remote areas of Wales. There is also an opportunity to investigate the opportunity of hydrogen vehicles, especially for larger vehicles. With this in mind we recognise that we may have to continue to supplement our fleet with battery-hybrid or highly efficient petrol/diesel vehicles to ensure service levels are maintained in the short term.

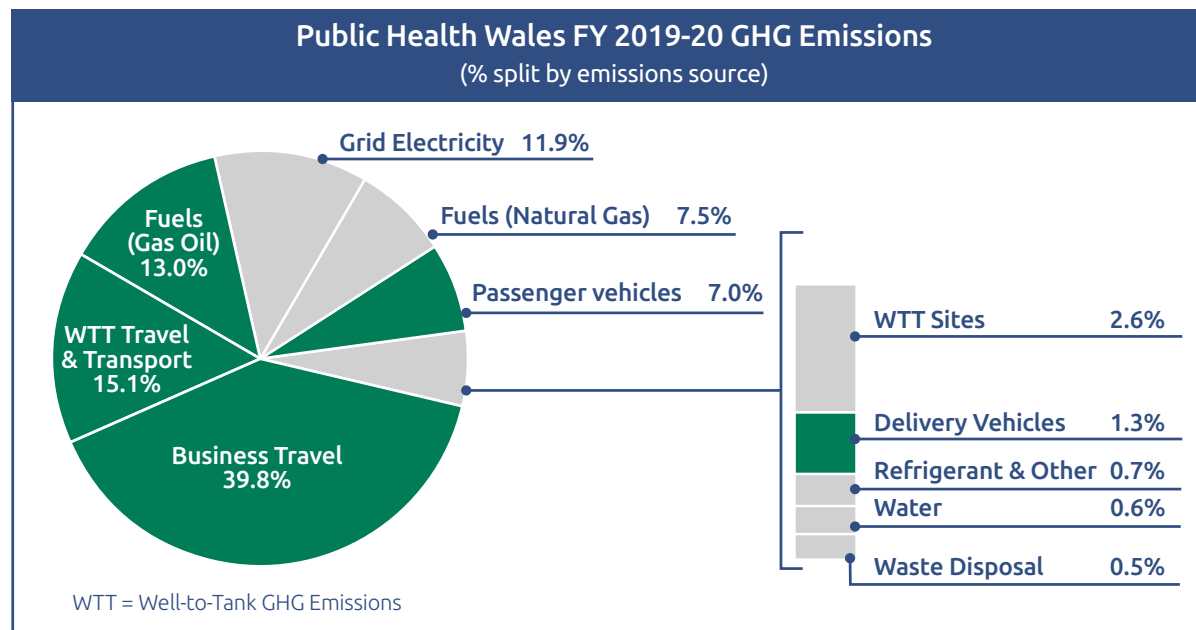


Figure 8 – Transport and Travel GHG emissions within Public Health Wales's direct GHG emissions footprint



6.1 Key Actions:

Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescale
Owned Transport	Transition our owned vehicle fleets to electric/ hybrid vehicles	Develop a strategy to support the transition to electric and hybrid vehicles within PHW operations.	All Directorates – individual responsibility	2023 (tbc)	2022
		Review current provision of charging infrastructure across PHW’s sites and engage with other Health Boards to increase the provision of EV charging infrastructure in line with NWSSP Best Practice Guidance. Financial Implications	Facilities/ Estates	2023	2023
		Procure battery-electric vehicle replacements (where practically possible) and/or ultra-low emissions vehicles (hybrids) through NWSSP for leases ending after April 2022 within our owned vehicle fleets. Research opportunities for ultra-low emission vehicles (ULEV’s) (Hydrogen, EV etc.) for larger fleet vehicles. Financial Implications	All Directorates – individual responsibility Procurement Finance	2022 – ongoing (tbc)	2022 / 2025
Business Travel & Commuting	Support staff to decarbonise their business travel and commuting	Undertake a review to assess current business travel requirements and how these are likely to change with the implementation of agile working for staff members.	Finance	2022	2022
		Update PHW’s Policies in regard to travel and claiming expenses to incorporate a sustainable travel hierarchy based upon the outcomes of completed review; placing public transport and active travel as preferred options.	Relevant Policy Holders	2023 (tbc)	2022
		Evaluate and implement financial structures/initiatives to encourage staff uptake of sustainable travel options Financial Implications	Finance People & OD	2024	2023
		Review how salary sacrifice schemes can be implemented or enhanced to encourage uptake of electric and/or hybrid vehicles by staff.	People & OD / NWSSP	2023	2023
Business Travel & Commuting	Support staff to decarbonise their business travel and commuting	Promote the NHS Green Car scheme to encourage uptake of ULEV’s and ensure the charging infrastructure is in place to support this.	People & OD / NWSSP Health & Sustainability Hub	2022 (tbc)	2023



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescale
Business Travel & Commuting	Support staff to decarbonise their business travel and commuting.	Consider opportunities to utilise local car clubs and sharing initiatives to reduce business travel in their own vehicles.	All Service Areas – Individual responsibility	2024 (tbc)	2023
		<p>Ongoing engagement with staff members to promote sustainable and active travel options (where practically possible) for commuting and for business travel including:</p> <ul style="list-style-type: none"> Internally supported campaigns to promote public transport use and car sharing schemes Internal workshops and training on the benefits (GHG emissions and health) of decarbonising travel & transport. <p>Financial Implications</p>	Health & Sustainability Hub	2023 - ongoing	2023
Active Travel	Encourage the use of Active Travel options	<p>Complete an evaluation across PHW (whole organisation) to understand the current level of facilities and internal policy available to support active travel options, such as:</p> <ul style="list-style-type: none"> Provision of showers, changing and storage facilities (e.g., bike racks) across PHW sites Existing public transport provision Flexibility of shift times to align with public transport timetables Support mechanisms available to incentivise active travel within PHW. 	Facilities All Directorates	2023 (tbc)	2022
		<p>Develop an incentive scheme for employees who use active transport options. Undertake a trial run of identified incentives to gauge staff uptake and long-term feasibility, with a view towards rolling out to all staff if trial is successful.</p> <p>Financial Implications</p>	Finance	2024	2023
		<p>Achieve the Cardiff Healthy Travel Charter Commitments to champion the uptake of active travel options within our own organisation.</p> <p>Financial Implications</p>	Health & Sustainability Hub	2023	2023

7 Activity Stream 4 - Procurement

The procurement of goods and services through NWSSP Procurement Services represents Public Health Wales’s largest indirect environmental impact but also an opportunity to support cross-sector decarbonisation across our supply chain. GHG emissions resulting from Public Health Wales’s Procurement activities totalled **11,458,708 kilograms CO2e (91.2% of our combined direct and indirect GHG emissions footprint).**

In the first instance, Public Health Wales will take the approach to develop an indicative benchmark of our procurement emissions with a view towards using this to inform an engagement strategy with our suppliers. Over the next 2 years, this will allow Public Health Wales to determine the level of carbon management that already exists within our supply chain and to develop a series of active intervention measures to reduce our GHG emissions in this area.

PHW will also look to understand how our current behaviours surrounding procurement contribute to our GHG emissions and will identify actions to improve the sustainability of our procured goods. Reducing the amount of single-use plastic promotional items procured (in-line with our pledge to be plastic free by 2023) and reviewing the requirement to have hard-copies of publications, are just two examples of where we can look to reduce our GHG emissions.

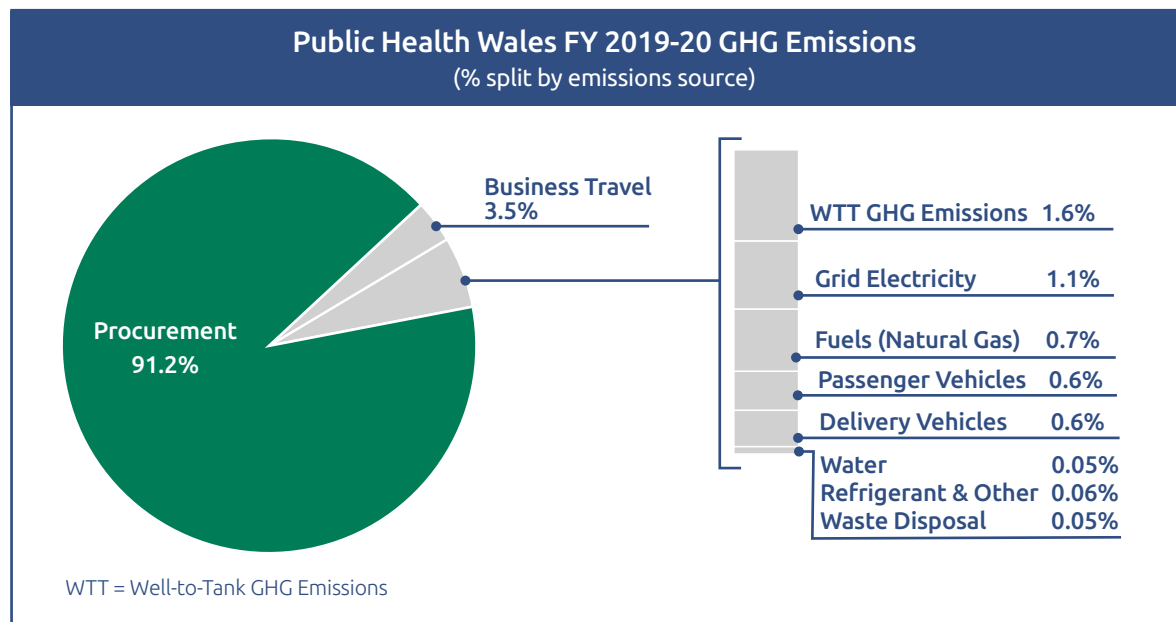


Figure 9 - Split of Public Health Wales’s total GHG emissions for 19-20 highlighting Procurement GHG emissions.



7.1 Key Actions:

Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescale
Procurement	Active Interventions	Develop and publish a Sustainable Procurement Code of Practice to aid interaction with our suppliers considering the following key elements: <ul style="list-style-type: none"> • Implementation of sustainable risk assessments • Methodology for determining and validating sustainable actions by suppliers • Incorporation of carbon management requirements within PHW tenders • Use of approved local suppliers in the first instance • Decarbonisation strategies of our existing/new suppliers • How to quantify/assess the impact of sustainable procurement choices. • Take advantage of supplier recycling options/ energy efficiency of equipment etc. • Opportunities for large joint procurement 	Procurement	2023 (tbc)	2023
		Complete a GHG emissions analysis of current procurement data and identify emissions reduction priorities and inform initial supplier engagement within our supply chain.	Procurement	2023 (tbc)	2022
Procurement	Active Interventions	Develop and implement a programme of supplier engagement throughout the procurement process and during delivery to encourage and support ongoing decarbonisation of their operations.	Procurement	2023 (tbc)	2022
		Review current processes for reviewing suppliers and contractors within our procurement activities. Update our current process to ensure we are consciously choosing more environmentally friendly organisations.	Procurement	2023 (tbc)	2023



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescale	NHS Wales Decarbonisation SDP Timescale
Procurement	Active Interventions	Complete a review to determine where more sustainable products can be used, where feasible, in our laboratories and mobile services (screening services); actively choosing companies that use biodegradable outer packaging rather than plastic. Financial Implications	Microbiology Screening Division	2026	2023
Procurement	Supply Chain Awareness	Develop and implement an awareness campaign to engage with all suppliers about their role to support the decarbonisation of Public Health Wales's operations.	Procurement Communications	2024 (tbc)	2024
		Undertake internal engagement with different teams within Public Health Wales to understand how procurement activities fit in within our Decarbonisation Action Plan.	All Directorates/ Service Areas – Individual Responsibility	2022 – ongoing (tbc)	2022 onwards
Procurement	Supply Chain Engagement	Review the decarbonisation strategies of our key suppliers to understand the level of carbon management and monitoring which currently exists within our supply chain.	Procurement All Service Areas – individual responsibility	2024 (tbc)	2023
		Undertake the development of a specific supplier standard which includes considerations surrounding carbon monitoring and wider management activities. Engage with suppliers on how this standard should be compiled.	Procurement	2024 (tbc)	2023
		Update current tender requirements to place greater emphasis upon carbon management and active decarbonisation for prospective suppliers.	Procurement	2024 (tbc)	2023

8



Activity Stream 5 - Approaches to Healthcare and Service Provision

It is well documented that there is a significant link between the impacts of Climate Change and the health and wellbeing of people. Health and well-being related impacts resulting from Climate Change are wide ranging; impacting upon physical, mental, and financial wellbeing of the communities we serve. Examples of impacts we are already experiencing in Wales include:

- Increased risk of injury and death from the prevalence of extreme weather events (e.g., heatwaves, storms, flooding)
- Increased prevalence of chronic health conditions due to poor air quality,
- Disruption to accessing health, social care, and support services due to extreme weather events,
- Financial stress upon service providers due to increased demand.

Existing economic and health inequalities mean that health and well-being risks are likely to disproportionately impact those on lower incomes. Our approach to future healthcare and service provision needs to factor in these impacts and ensure we can continue to effectively serve our local communities. We have an important role to support NHS Wales's Decarbonisation Strategic Delivery Plan, but also recognise the inherent positive impacts that improving healthcare services have on the health and wellbeing of our local populations.

Proactively supporting population health to prevent illness and ill-health will have a huge positive impact on decarbonisation, for example, through a reduction in energy, food and raw materials required in caring for patients.

8.1 Education

Public Health Wales in collaboration with Health Education and Improvement Wales (HEIW) has an important role to play in communicating the latest knowledge and best practice research on decarbonisation to our staff, students, and patients across Wales. As champions of education, we will continue to support NHS Wales's ambition to embed decarbonisation within day-to-day decision-making processes of the health service, educational institutions, and public communication.

8.2 Smarter Working

NHS Wales highlights that the model of healthcare provision must evolve, moving the point of care away from hospital settings and closer to patient homes. The evolution of this model is to be achieved through increasing the levels of healthcare at local community hubs, the use of digital



monitoring of patients, and through prevention. The Covid-19 pandemic forced Health Boards and NHS Trusts to accommodate agile working within their operations and consider how they can accommodate this approach moving forwards.

Public Health Wales will support our staff to transition to smarter new ways of working through the update of our operational processes. We will work with external partners (other Health Boards and NHS Trusts) to identify opportunities to share and utilise office space to reduce travel requirements. PHW will also continue to invest in suitable IT-based equipment for home workers, to support the transition to smarter working. PHW also acknowledge that some delivery areas run 24/7 and require staff to be onsite to run services as all require specialist equipment and PPE, resulting in not all service areas being able to benefit from home and agile working.

Moving forwards, we will also continue to review the role digital monitoring and healthcare technologies may play in our future service provision, to support NHS Wales's decarbonisation ambition.

8.3 Primary Care

The Primary Care Division within Public Health Wales is supporting primary care to become more sustainable through the Greener Primary Care Wales Framework and Award Scheme, launched in June 2022. The scheme has been developed as a practical toolkit to support independent primary care contractors (general practice, community optometry, community pharmacy and primary care dental practice) to improve the environmental sustainability of their day-to-day practice and respond to the climate emergency.

8.4 Waste Reduction

The reduction of waste generated from the provision of healthcare services is identified as a key reduction priority for NHS Wales. Currently more than half of healthcare wastes generated by NHS Wales is being recycled which highlights the already significant progress made in this area; however further action needs to be taken to support decarbonisation.

Public Health Wales understands that we have an important role to play in not only minimising waste from our own operations, but also in supporting Health Boards and NHS Trusts to reduce their own wastes. We have identified a number of different actions focused upon our own operations and the influence we can have upon the broader NHS.



8.5 Key Actions

Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescales	NHS Wales De-carbonisation SDP Timescale
Smarter Working	Flexible working models	Undertake a study through our Work How it Works Best initiative, to determine the proportion of the workforce that could regularly work remotely or on a hybrid basis.	People & OD	2023	2022
		Continue to invest in suitable IT and office-based equipment for remote and hybrid workers to encourage uptake. Financial Implications	Facilities and Estates IT	2022 -2023	2022
		Work with Estates Planning Team to review the current provision of local community hubs which can be used to deliver our screening and clinic services.	Facilities/ Estates Microbiology Screening Division	2023	Ongoing
Smarter Working	Rationalising and optimising site-based working	Establish a monitoring and booking system for staff to utilise to book places within office environments.	Facilities/ Estates	2022	2022
		Review current operations to identify where procedures and process can be changed or optimised to make these more sustainable.	All Directorates/ Service Areas – individual responsibility	2023 (tbc)	2023
Smarter Working	Digitalisation	Complete a review of the current approach to delivering our services to identify areas of PHW that may significantly benefit from digitalisation. Review the positive and negative aspects that have occurred from implementation of digitalisation.	Microbiology Screening Division Individual service Areas	Ongoing (tbc)	Ongoing
		Complete an internal review to identify area where reductions in paper can be achieved through digitalisation.	All Directorates/ Service Areas – individual responsibility IT	Ongoing (tbc)	Ongoing



Activity Area	Key Action	Sub Actions	Responsibility	PHW Timescales	NHS Wales De-carbonisation SDP Timescale
Waste Reduction	Reducing waste generated within our operations and supporting NHS Wales to reduce waste.	Identify and take advantage of new and emerging methods of recycling and reusing materials (incorporating the principles of the circular economy) which can benefit Health Boards and NHS Trusts.	All Directorates/ Service Areas – individual responsibility Facilities/ Estates	2022 (tbc)	2022
		Review the opportunities to use reusable personal protective equipment within our operations as a replacement for single use items and switch items where applicable. Review the opportunities to use reusable equipment within our operations as a replacement for single use items and switch items where applicable Financial Implications	Microbiology Screening Services	2023 - onwards	2022 onwards
		Support NHS Wales to minimise and reduce waste through ongoing engagement with Health Boards, NHS Trusts, and the general public.	Facilities/ Estates	Ongoing	2022 onwards
Education	Supporting NHS Wales’s ambition to embed decarbonisation within day-to-day decision-making processes of the health service, educational institutions, and public communication.	Develop resources in collaboration with HEIW to support other public bodies and stakeholders to reduce their GHG emissions highlighting associated benefits of improving the health of our local communities. Financial Implications	Health and Sustainability Hub	Ongoing	Ongoing
		Increase staff awareness and understanding, to support behaviour change and home environment improvements to reduce individual emissions	All Directorates/ Individual Service Areas	Ongoing (tbc)	Ongoing

9 Responsibilities and Governance

The Decarbonisation Action Plan is a living breathing document that will react to internal and external changes and influences.

Public Health Wales will establish a Strategic Decarbonisation Delivery Group, which will be responsible for ensuring the Action Plan is delivered. The group will be led by the Executive Director responsible for Environmental Sustainability and will have representation from each Directorate. The group will liaise with every directorate/ service area to ensure every opportunity is taken to reduce carbon emissions. A Terms of Reference will be developed for the group, and progress will be reported to the Executive Team.

Representatives from each service area/ directorate will monitor and report on progress towards relevant actions, to the Strategic Decarbonisation Delivery Group every three months.

Public Health Wales will provide a progress report to Welsh Government every year, starting in March 2023.

Next Steps:

- Establish a Strategic Decarbonisation Delivery Group and develop terms of reference.
- Confirm reporting process with Executive and schedule agenda item for regular updates.
- Establish an internal reporting process with representatives from service areas/ action leads providing an update on actions to the Strategic Decarbonisation Delivery Group every three months.

10 Financing

It is vital that low carbon is considered in decision-making outside of the normal decarbonisation project space, including influencing supply chains. Additionally capital budgets and spending must align with the decarbonisation agenda. Achieving Net Zero will require Public Health Wales to scrutinise all of its activities and take appropriate action where necessary. This will require a different way of thinking with more emphasis placed on environmental considerations.

It will be challenging for Public Health Wales to identify resources to drive forward the changes necessary to achieve the goal of reducing emissions to achieve Net Zero. Public Health Wales will need to work through the financial implications of delivering the requirements of the NHS decarbonisation agenda.

We also need to explore all funding sources to support delivery of actions to instigate positive change. Significant investment will be required to achieve the actions and reduce emissions, to meet the reduction targets by 2030.

The NHS Wales Decarbonisation Strategic Delivery Plan recognises that access to additional resource and finance is critical to ensure the success of the Delivery Plan. However, much progress can be made by championing decarbonisation within the decision-making process, and by integrating this into behaviour across NHS Wales.

The NHS Wales Decarbonisation Strategic Delivery Plan also states, *'As part of the Action Plan development and review process, the Climate Change & Decarbonisation Programme Board and Welsh Government will understand the capital and revenue impacts for NHS Wales organisations. This will allow a strategic approach to be taken for investment decisions. The journey must start right away, to support this Welsh Government have ring-fenced an initial £16m of decarbonisation capital to support initiative implementation in 2021/22.'*

11 Risks

Risk	Mitigation
<p>Sufficient capacity across PHW and within individual service areas to deliver the actions identified in the Decarbonisation Action Plan.</p>	<ul style="list-style-type: none"> • Consider opportunities to align roles and processes to coordinate activities, maximise efforts and promote achievements • Embed into existing governance arrangements • Identify existing key action leads within service areas across PHW
<p>Insufficient understanding of the financial implications to deliver the Decarbonisation Action Plan.</p>	<ul style="list-style-type: none"> • Clarify financial implications over the course of 2022-23; PHW will need to commit resources and make financial allocation decisions through the IMTP for 2022/23 onwards • Integrate actions into IMTP and Individual Directorate/ Service area Planning • Take advantage of opportunities for external funding to deliver actions, including The Wales Funding Programme, Invest to Save Schemes and WG funding • Identify opportunities for partnership projects with other Health Boards/ Trusts to support funding opportunities • Capture opportunities to work with WG and other available services including the Welsh Government Energy Service and Carbon Trust
<p>Support required from other partners to deliver actions within the Decarbonisation Action Plan.</p>	<ul style="list-style-type: none"> • Identify opportunities for partnership projects with other Health Boards/ Trusts
<p>Delivery of a large number of actions during the first year.</p>	<ul style="list-style-type: none"> • New ways of working will need to be established to enable capacity to support delivery of actions • Integrate actions into IMTP and identify budget to support delivery
<p>Managing the breadth and cross cutting scope of the Decarbonisation Action Plan to align resources and capacity.</p>	<p>Establish internal reporting process</p> <ul style="list-style-type: none"> • Action Leads report to the Strategic Decarbonisation Delivery Group every three months. • The Strategic Decarbonisation Delivery Group meet every three months to report on progress. • The Strategic Decarbonisation Delivery Group report to Executive.

12 Future Considerations – Long Term Actions

The following actions have come from the development of our 2022-2024 Decarbonisation Action Plan and the NHS Wales Decarbonisation Strategic Delivery Plan 2021-2030. They will need to be considered for our 2024-2026 Decarbonisation Action Plan. Some of the actions detailed below will follow on from actions identified within this plan and will require long term planning ready for delivery as part of our 2024-26 Decarbonisation Action Plan.

12.1 Activity Stream 1 - Carbon Management Future Actions

Activity Area	Key Action	Sub Action	Responsibility	PHW Timescales
Staff Engagement & Training	Facilitate staff engagement in carbon management and PHW's Decarbonisation Action Plan.	Provide Carbon Literacy training for all PHW staff. Financial Implications	Individual Service Areas	2030
		Develop an online training module within ESR training programme, to increase awareness and understanding of: <ul style="list-style-type: none"> NHS Wales Decarbonisation Strategic Delivery Plan PHW Decarbonisation Action Plan Energy efficiency Sustainable and active travel choices Waste hierarchy and reducing waste in our operations Agile working and homeworking GHG emissions Actions individuals can take to reduce their carbon emissions and environmental impact Financial Implications	Health & Sustainability Hub	2025

12.2 Activity Stream 2 – Buildings, Estate Planning & Land Use

Activity Area	Key Action	Sub Action	Responsibility	PHW Timescale
Use of Buildings (Owned Buildings)	Undertake a decarbonisation assessment to identify decarbonisation technologies and initiatives for owned buildings	Determine the financial implications of each proposed decarbonisation technology to inform investment and funding activities.	Facilities / Estates	2024-2028
	Expand current renewable capacity and onsite energy generation	Explore opportunities to deploy renewable technologies (e.g., Solar Photovoltaics) in accordance with our estate plan considering the following: <ul style="list-style-type: none"> Existing planning permissions Business case for the implementation of renewables Installation of renewable technology where feasible Financial Implications	Facilities/ Estates	2024-2027
Waste (All sites)	Improve waste management processes within current practices	Review current workplace processes to determine methods to reduce waste across all operations where feasible and incorporate the circular economy.	All Directorates/ Service Areas – individual responsibility	2025
		Review use of single use plastics and replace with sustainable alternatives where feasible for individual service area in non-clinical settings, in-line with PHW’s commitment to be plastic free by 2023 Financial Implications	All Directorates/ Service Areas - individual responsibility	2026
Green Spaces	Leased sites	Work with our external partners (Health Boards and NHS Trusts) to enhance green spaces and redevelop underutilised spaces within leased sites. Financial Implications	Facilities/ Estates	2025
Green Spaces	Leased sites	Support local initiatives to maintain and promote the use of green spaces within leased sites and in the local area.	Facilities/ Estates	2025
		Investigate wider opportunities for carbon offsetting schemes that benefit the local environment and communities (e.g., tree planting programmes).	Facilities/ Estates	2025

12.3 Activity Stream 3 – Transport & Travel

Activity Area	Key Action	Sub Action	Responsibility	PHW Timescales
Business Travel & Commuting	Support staff to decarbonise their business travel and commuting.	Review current provision of EV charging for staff vehicles and engage with site owners to increase the provision of infrastructure. Financial Implications	All Service Areas – Individual responsibility Facilities	2024-2028
		Review current provision for electric bike charging for staff and engage with site owners to increase provision. Financial Implications	All Service Areas – Individual responsibility Facilities	2024-2028
Active Travel	Encourage the use of Active Travel options	Expand the Cardiff Healthy Travel Charter commitments to all of PHW, covering all sites across Wales. Financial Implications		2026

END OF ACTION PLAN

13 Appendix 1 - References

The following sources of guidance and further information have been referenced within this Decarbonisation Action Plan:

1. Committee on Climate Change (June 2021) 'Independent Assessment of UK Climate Risk' (Third Climate Change Risk Assessment) (<https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>)
2. World Health Organisation (2022) 'Climate Change' (https://www.who.int/health-topics/climate-change#tab=tab_1)
3. Public Health Wales (2022) 'Climate Change Infographics' (<https://phw.nhs.wales/news/new-resource-highlights-health-impacts-of-climate-change/>)
4. Committee on Climate Change (June 2021) 'Independent Assessment of UK Climate Risk – Sector Briefings' (Health and Social Care) (<https://www.ukclimaterisk.org/independent-assessment-ccra3/briefings/>)
5. Welsh Government (2019) 'Prosperity for All: A Low Carbon Wales' (https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf)
6. Welsh Government (2021) Net Zero Wales (<https://gov.wales/net-zero-wales>)
7. Welsh Government (2016) 'Overview of The Environment (Wales) Act 2016' (<https://gov.wales/sites/default/files/publications/2019-05/environment-wales-act-2016-overview.pdf>)
8. Public Health Wales (2018) 'Making Space for Nature: Public Health Wales' plan to maintain and enhance biodiversity and promote the resilience of ecosystems' (<https://phw.nhs.wales/topics/health-and-sustainability/making-space-for-nature-the-public-health-wales-biodiversity-plan/>)
9. Welsh Government (2015) 'Well-being of Future Generations Act 2015' (<https://gov.wales/sites/default/files/publications/2019-08/well-being-of-future-generations-wales-act-2015-the-essentials.pdf>)
10. NHS Wales & Carbon Trust (March 2021) 'Decarbonisation Strategic Delivery Plan' (<https://gov.wales/nhs-wales-decarbonisation-strategic-delivery-plan>)
11. Public Health Wales (February 2020) 'Air Pollution and Health in Wales' (<https://phw.nhs.wales/services-and-teams/environmental-public-health/air-quality/air-pollution-and-health-fact-sheet/>)

END OF ACTION PLAN ANNEXES



GIG
CYMRU
NHS
WALES

Iechyd Cyhoeddus
Cymru
Public Health
Wales



Public Health Wales
Number 2 Capital Quarter
Tyndall Street
Cardiff, CF10 4BZ

Tel: 029 2022 7744
Email: general.enquiries@wales.nhs.uk