Net Zero'n'Green

Berkshire Healthcare's Green Plan 2022-25

Contents

Foreword

> *"The climate emergency is a health emergency. Climate change threatens the foundations of good health, with direct and immediate consequences for our patients, the public and the NHS"*
>
> Costello A, Abbas M, Allen A, Ball S, Bell S, Bellamy R, et al.
> Managing the health effects of climate change. Lancet 2009; 373(9676): 1693–1733.

> *"When you look at climate change from a human mortality perspective, it will be the equivalent of a coronavirus crisis every year from the middle of this century, and every year, not just a one-off event. So, it is an issue that needs to be addressed now."*
>
> Mr Mark Carney, United Nations envoy for climate action and finance,
> https://www.bbc.co.uk/news/business-55944570 viewed, 10th February 2021

There is irrefutable evidence that the planet's temperature has increased by over 1 degree centigrade since pre-industrial levels. If a dramatic reduction in greenhouse gas emissions does not take place this is predicted to increase by a further 3 degrees centigrade by 2100.

There is universally consensus that keeping a global temperature increase to 1.5 degree centigrade is required to minimise the devastating impacts of a warming planet. This can only be achieved by cutting greenhouse gas emissions and implementing actions that that will absorb carbon dioxide from the atmosphere.

This has led to net zero carbon emission commitments being made by nations, states, local government, the public sector and commercial organisations across the planet, including NHS England, which has a net zero target by 2045.

The Greener NHS programme was launched in 2020 to support and implement the changes required to address climate change and ensure that the NHS is a provider of sustainable healthcare.

For NHS England to meet this target all Trusts need to make the necessary changes to reach their own net zero target. Taking actions to achieve this will also contribute to ensuring the provision of a sustainable healthcare service now and for future generations.

To facilitate the change all NHS Trusts have been tasked with preparing and implementing a Green Plan, which will set out the organisations direction and actions to progressively decarbonise the provision of healthcare.

This is Berkshire Healthcare's first Green Plan and sets the foundations to progressively remove carbon emissions from all its operational activities and strategic decision making. It focuses on the areas that, firstly the Trust has control over, secondly are clearly defined sources of greenhouse gas emissions and finally will create a position for successful long-term change.

The Green Plan will also ensure that the Trust is taking direct action to enable it to be an organisation that is taking a lead in becoming a provider of sustainable healthcare and will achieve its overarching vison in relation the climate change and sustainability, which is:

> *To be a provider of healthcare that is efficient, flexible, and resilient by applying the overarching principles of sustainability.*

Introduction

Berkshire Healthcare's Green Plan (2022-25) is about making change. Change that is both for the good of all who use and rely on our services and those who provide these healthcare services.

It is a pathway strategy and starts our drive to decarbonise all of our operational activities and strategic decision making. Its implementation will affect all aspect of clinical and non-clinical activities, ensuring that we're providing healthcare services that are sustainable and that are not contributing to environmental damage.

The climate emergency and sustainability requirements will need to be taken into account and addressed at every operational level throughout the Trust. This subject area is intrinsically linked to everything each and every staff member does, and every decision made. It is a 'must do', not a 'nice to have'.

We're in the relatively unique position of operating across a geographical area that is covered by two different Integrated Care Systems. These are Buckinghamshire, Oxfordshire and Berkshire West (BOB) Integrated Care System and partnerships and Frimley Integrated
Care System (for East Berkshire).

We need to address the climate emergency and provide healthcare services that don't damage the environment, are socially responsible and financially efficient.

The net zero carbon emissions target and sustainable healthcare agenda are fundamentally aligned so that working towards one will also support meeting the other.

The greener NHS programme and the delivering a net zero National Health Service commitments increases the impetus and clarifies the need to address climate change, ensuring that the NHS delivers the required actions to enable its realisation of its ambition to be a sustainable healthcare provider.

To achieve this all trusts are now required to have a Board-approved Green Plan. This strategic document outlines the organisation's aims, objectives, and delivery plans for achieving net zero and sustainable healthcare. It is valid for 3 years and reviewed at least once in the interim period and reported on to the Board or Governing Body on an annual basis.

This, being our first Green Plan, will focus on reducing the carbon emissions that we have direct control over (NHS carbon footprint) as well as setting the foundation to manage the reduction of carbon emissions that it can influence (NHS carbon footprint plus).

By taking direct action the Trust will be moving towards its overarching 'Green' vision,

> ***To be a provider of healthcare that is efficient, flexible, and resilient by applying the overarching principles of sustainability.***

This Green Plan sets out a number of strategic goals which support and ensure that our overarching green vision is achieved. These strategic goals are.

- **Cut carbon** to be net zero
- **Stop polluting** of the environment
- **Improve health and wellbeing**
- Improve **financial efficiency**
- Enhance **reputation**

These goals shape the specific actions that this Green Plan will target and address. It focuses on areas of action that we have more control over as well as being responsible for carbon emissions that are

clearly defined. It also set the foundations for future actions in areas that we can influence but not directly control.

The 2022-25 Green Plan is the start of a process to facilitate huge change to ensure that Berkshire Healthcare is contributing and leading in its ambition to achieve net zero and provide sustainable healthcare to all of the communities it serves.

The foundation of the Net Zero'n'Green plan.

Becoming Net Zero is an underlying, must achieve, necessity for the Trust. It means that we need to take actions that will balance the amount of emitted greenhouse gases with the equivalent emissions that are either offset or stored.

To achieve this, we will firstly need to rapidly reduce our carbon emissions. Where we cannot remove all carbon, we will need to find a means to capture and store carbon or offset the equivalent emissions. We will need to effectively balance the impact of the remining greenhouse gas emissions with a way of removing the same amount from the atmosphere.

The sources of carbon are diverse and intricate in detail. Some are easy to identify and measure whereas other are not only difficult to measure but also beyond the direct control of the Trust. Many of these more challenging sources are related to the purchase of goods and services and this is where we can influence and guide change by third party organisations through procurement processes and Trust policy.

The diagram below demonstrates the complex number of identified sources of carbon emission, direct and indirect that all NHS Trusts will need to address to reach the net zero by 2040.
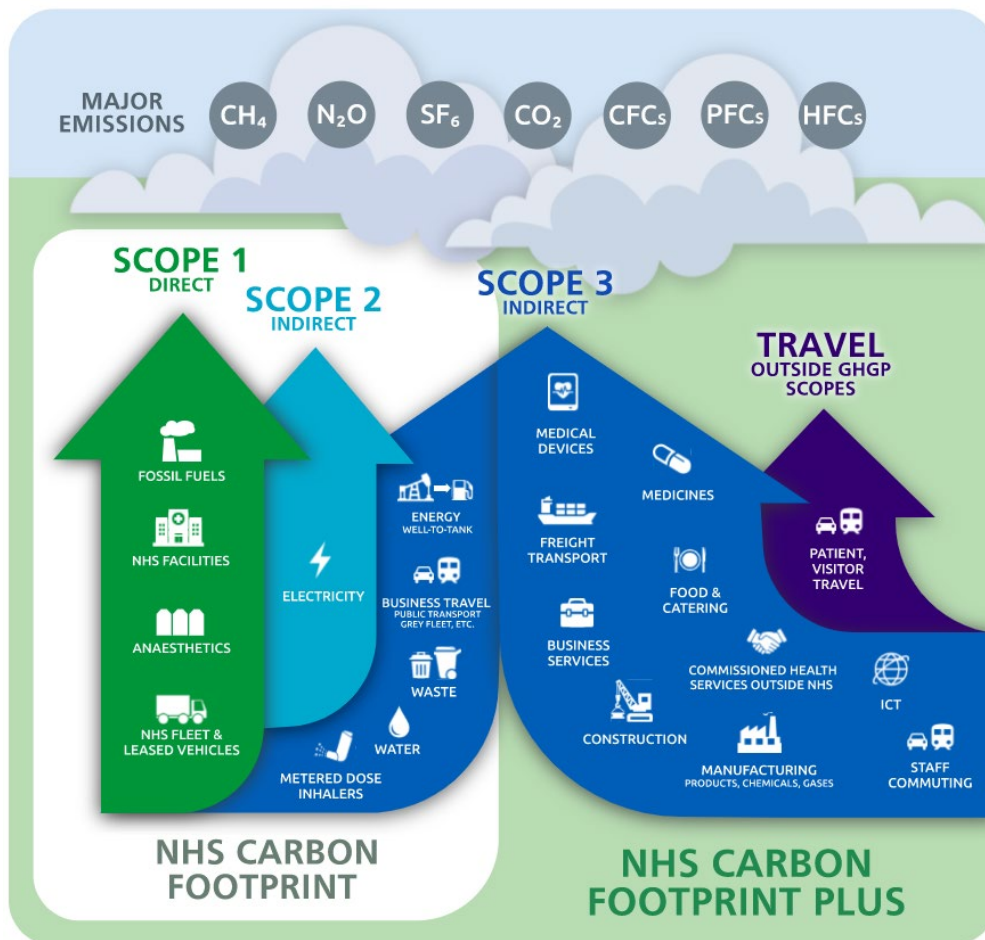
Delivering a 'Net Zero' National Health Service, NHS England and NHS Improvement, 2020

In general, for Berkshire Healthcare, the scope 1 and 2 sources of emissions are the ones it has more direct control over and are identified as the NHS Carbon footprint. The NHS carbon footprint plus is the more challenging goal where influence and guidance will be needed to assist in the management and reduction in these sources of carbon that we need to remove from our operational activities and strategic decision making , in order to achieve net zero.

The diagram below highlights which activities and by what proportion contribute to the NHS carbon footprint. It also demonstrates the part that is under direct control as opposed to the part which can be influenced.
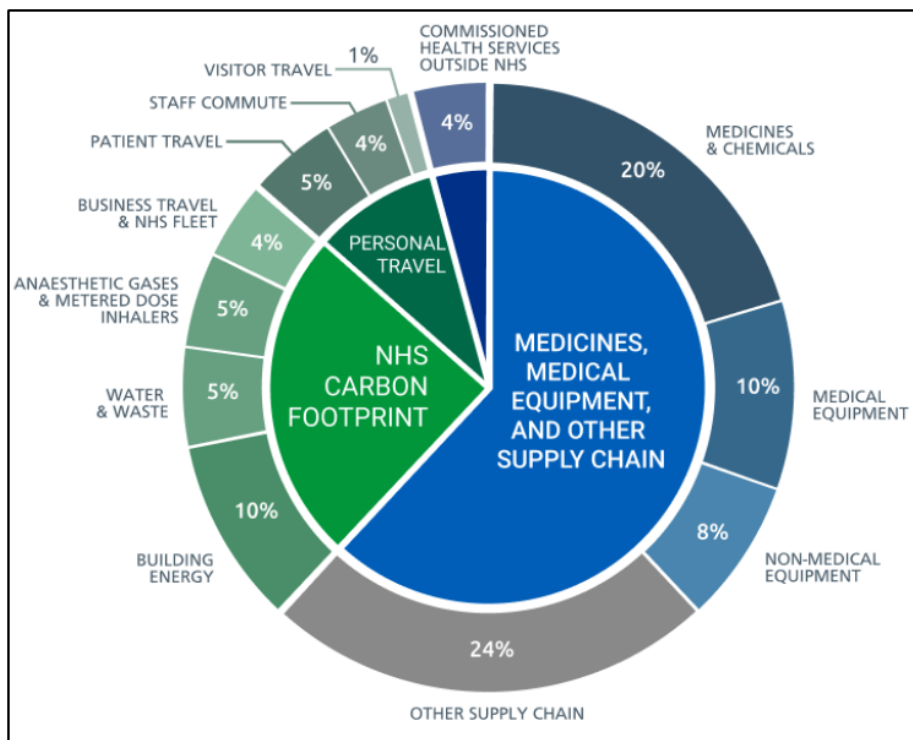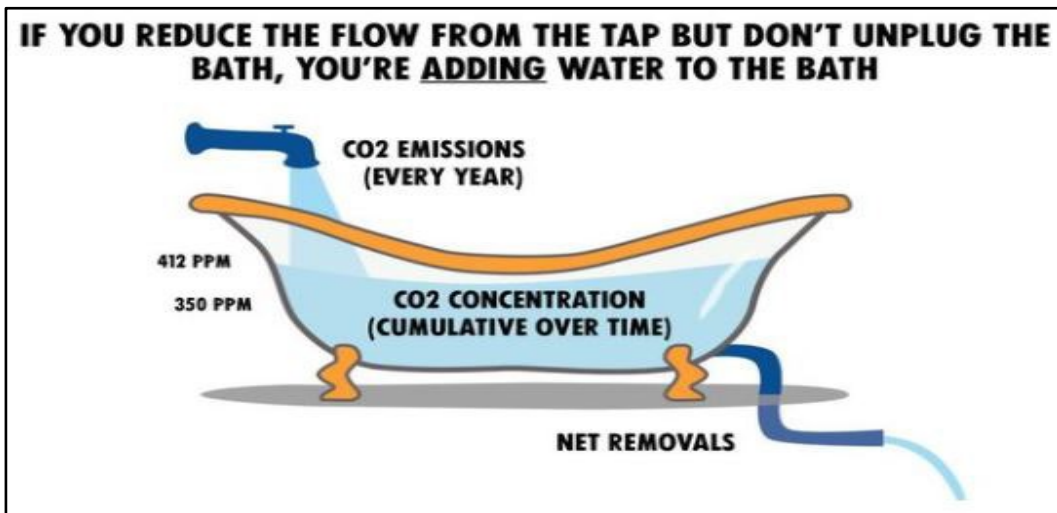

Delivering a 'Net Zero' National Health Service, NHS England and NHS Improvement, 2020

24% control = carbon footprint
76% influence = carbon footprint plus

This needs to be achieved through the removal, as far as is possible, of all carbon emissions. Where all opportunities to achieve this have been utilised then the residual emissions need to be offset. This means utilising carbon credits or sequestration through rewilding or carbon capture and storage

The diagram below indicates the specific activities that cause the most greenhouse gases for Community and Mental Health Trusts and highlights where this strategy needs to focus for our first Green Plan.

Using a bath to explain this means that the water from a tap increase the level of the water in the bath. Similarly, burning fossil fuels is the open tap putting more and more greenhouse gasses into the atmosphere. If we shut the tap, then we stop the water, and the bath stops filling. If we stop burning fossil fuel, then we stop filling the atmosphere with greenhouse gases and the water level does not rise.

IF YOU REDUCE THE FLOW FROM THE TAP BUT DON'T UNPLUG THE BATH, YOU'RE <u>ADDING</u> WATER TO THE BATH

CO2 EMISSIONS (EVERY YEAR)

412 PPM
350 PPM

CO2 CONCENTRATION (CUMULATIVE OVER TIME)

NET REMOVALS

(www.sheffieldtelegraph.co.uk/news/environment/think-of-the-bath-as-an-analogy-for-co2-emissions-3406587, viewed 10th November 2021)

If we pull the plug, then the water level drops as the water drains away. From a net zero perspective this is where we remove greenhouse gasses from the atmosphere to reduce the global warming effect. This includes carbon storage or planting trees which take carbon out of the atmosphere and drop the levels of greenhouse gases.

Addressing the climate emergency is imperative and not a nice to have or do. We have no choice but to act. Legally, morally, financially and from a service continuity perspective the Trust will need to become a net zero emitter of Greenhouse gases.

The legislation, national targets and NHS plans and business requirements all require commitment and investment to facilitate direct action that will cut environmental damage and contributions to global warming and are the foundations of the Net Zero Green Plan.

Legislation

There are key pieces of national legislation that we have to comply with, and the application of this net zero green plan will ensure that the organisation is meeting the legal obligations set out in the following Acts.

- **Climate Change Act (2008)**

UK legislation – long term legally binding framework to reduce carbon emissions, mitigate and adapt to climate change. It sets CO2e reduction targets (compared to 1990 baseline) of; 34% by 2020, 50% by 2025, 80% by 2050. This was updated in 2019 to net zero by 2050.

- **Civil Contingencies Act (2004)**

This Act requires certain organisations to prepare for adverse events/ incidents. Heatwaves, flooding and cold weather can disrupt the operation of the health and care system and have direct impacts on health.

- **Public Services (Social Value) Act (2012)**

This Act places a requirement on commissioners to consider economic, social and environmental benefits, taking a value for money approach -. not lowest cost - to assessing contracts, when buying goods and services

- **Health Sector Report on Adaptation (2015)**

Under the Adaptation Reporting Power provisions outlined in the Climate Change Act (2008) the government has nominated the Sustainable Development Unit with support from NHS England and Public Health England as the reporting authority for the health sector.

National targets

There are also a number of national targets that will have fundamental impacts upon the way we deliver our healthcare services.

- The UK has a national statutory target which requires the country to bring all greenhouse gas emissions to net zero by 2050.
- The NHS has a target to become net zero emitter of carbon emissions by 2045.
- The NHS target consists of a number of stage targets to achieve net zero. These are,
    - for the emissions we control directly (the NHS Carbon Footprint), net zero by 2040, with an ambition to reach an 80% reduction by 2028 to 2032
    - for the emissions we can influence (our NHS Carbon Footprint Plus), net zero by 2045, with an ambition to reach an 80% reduction by 2036 to 2039
- The sale of new petrol- and diesel-powered vehicles are to be banned by 2030.

Other NHS requirements and plans

The NHS Long-Term Plan - sets out the following deliverables for environmental sustainability in the NHS.
- Reduce carbon, waste and water: including phasing out coal and oil fuel as primary source of heating, switching to lower carbon asthma inhalers, Reducing the carbon footprint from anaesthetic gases
- Improve air quality: Cutting business mileages and fleet air pollutant emissions by 20%
- Reduce the use of avoidable single-use plastics

The 2021/22 NHS Standard Contract:
- Every trust to ensure a Board member is responsible for their net zero targets and their Green Plan.
- Every trust to purchase 100% renewable electricity from April 2021.
- Every trust to reduce its use of desflurane in surgery to less than 10% of its total volatile anaesthetic gas use, by volume.

Delivering a net zero National Health Service
- Ensure that, for new purchases and lease arrangements, systems and trusts solely purchase and lease cars that are ultra-low emissions vehicles (ULEVs) or zero emissions vehicles (ZEVs).
- Develop a green travel plan to support active travel and public transport for staff, patients and visitors.

The 2021/22 NHS planning guidance
- Where outpatient attendances are clinically necessary, at least 25% of outpatient activity should be delivered remotely, resulting in direct and tangible carbon reductions

Trust Plans, Policies and Programmes

Three Year Strategic Plan 2021/22 – 2024/25

Reducing environmental impact
Our response to COVID-19 included a substantial shift in the number of patients that no longer have to travel to clinics. This created a significant drop in our carbon footprint through reduced travel and reduced paper and office waste. We'll continue to keep our impact on the environment as low as possible by using digital opportunities where possible and appropriate.

Delivering sustainable services
We'll make the best use of our resources to ensure sustainability. Working with our ICS and ICP colleagues, we'll develop and maintain a sustainable health and care system. We'll make the best uses of our financial resources, making investment decisions aligned to our strategic priorities.

We'll secure new appropriate business and make the most of our assets and estates. At service level, we'll ensure we continue to focus on delivering best value for patients by improving our efficiency and productivity

True North Goals
The four True North goals set the direction of travel for us and are underpinned by a set of outcome measures to enable us to demonstrate our progress.

Goal 1: Harm free care – To provide safe services by eliminating avoidable harm
Goal 2: supporting our staff – To support our people and be a great place to work
Goal 3: Good Patient Experience – To provide good outcomes from treatments and care
Goal 4: Money Matters – To deliver services that are efficient and financially sustainable

The matrix below demonstrates how this strategy will contribute to achieving the True North goals.

True North Goals	Green Plan Strategic Goals				
	Cut carbon to net zero	Stop polluting the environment	Improve health and wellbeing	Improve financial efficiency	Enhance reputation
Harm free care - To provide safe services by elimination avoidable harm	✓	✓	✓		✓
Supporting our staff – To support our people and be a great place to work	✓	✓	✓		✓
Good Patient Experience – To provide good outcomes from treatments and care			✓	✓	✓
Money Matters – To deliver services that are efficient and financially sustainable	✓			✓	✓

There are a number of existing policy documents that the green plan will endorse, support and increase their effectiveness. These include,

- Remote Working Policy
- Sustainable Procurement policy
- Energy and water management policy
- Sustainable Development policy
- Green travel Plan

Green Plan - Governance

We have a designated Board-level Executive, the Chief Operating Officer, who is responsible for net zero and sustainability agendas.

We also have an established Green Group that provides guidance and direction across a broad range of subject areas, from both clinical and non-clinical perspective. It is made up of senior managers from across the Trust who provide guidance and influence our wider net zero and sustainability agendas.

The Green Group is responsible for the review and update of the Green Plan on a quarterly basis and will consider.

- the progress made and the ability to increase or accelerate agreed actions.
- new initiatives generated by staff or partner organisations.
- advancements in technology and other enablers.
- the likely increase in ambition and breadth of national carbon reduction initiatives and targets.

The Green Plan's progress will be reported on annually to the Trust Board with regard to how we are meeting all reporting requirements as specified by NHS England, the south-east region and the two Integrated Care systems, Frimley and BOB.

To support and ensure that we're able to provide the most accurate and informative reporting we will need to enhance the data we collect. This being an NHS E/I requirement which is directly supported and recognised by their Net Zero strategy, which states.

- Evidence-based targets and data underpin the analysis, commitments and success.
- Need to increase and improve the monitoring and data collection capacity of the whole system and all Trusts.
- Trusts will be required to include these indicators in their annual report, which will be used to inform a regular update of the NHS emissions profile.

Organisational 'Green' Vision

Our overarching vison in relation to climate change and sustainability is.

> ***To be a provider of healthcare that is efficient, flexible and resilient by applying the overarching principles of sustainability.***

This three-year Green Plan will focus on a number of strategic objectives that set out our immediate priorities, which will establish the necessary foundations for decarbonising our strategic and operational activities to achieve net zero by 2045.

The strategic goals that will support and enable our vision is set out below along with the necessary objectives;

Cut carbon emission
- Reducing gas, electricity and water usage to reduce carbon emissions
- Ensuring 100% green electricity supply to all sites
- Actively support and invest in travel that does not use petrol-or-diesel-powered vehicles
- Decarbonise heating systems
- All suppliers of goods and services to be aligned to net zero target

Stop polluting the environment
- Reduce waste to protect the environment
- Eliminate single use plastics
- Reduce causes of air pollution from healthcare provision
- Purchase harm free products whenever possible

Improve health and wellbeing
- Support on site health and wellbeing opportunities
- Invest in green site enhancement
- Support and encourage active travel i.e., walking and cycling to work.

Increase financial efficiency
- Reduce gas, electricity and water consumption to save money
- Reduce grey fleet mileage
- Reduce waste to cut costs

Enhance reputation
- Improve standing amongst peers
- Support and encourage staff green groups
- Provide information and promote action

By focusing on these specific areas, we will be able to make huge inroads in to cutting our carbon emissions and working towards the net zero target.

It will also mean that our operational activities will be increasingly more sustainable and enable us to operate in a way that will not damage the environment, is socially responsible and financially prudent.

NHS England Areas of focus

Becoming net zero and providing a sustainable healthcare service can only be achieved with all aspects of the Trust's operational and strategic activities embracing, engaging and endorsing the necessary far-reaching changes required.

The following subject areas have been identified by NHS England as overarching areas of focus when considering a green plan and take into account the areas that directly and indirectly impact upon carbon emissions and achieving sustainable healthcare.

Workforce and system leadership
Engaging, providing information and guidance is an integral part in achieving change that embraces sustainability and taking actions that reduce greenhouse gas emissions.

For us to successfully implement the necessary action to work towards a net zero outcome it is reliant on every member of staff making decisions and taking actions in support of this overarching strategic goal. Every member of staff will have their part to play in helping us achieve our net zero and sustainable healthcare goal.

Sustainable models of care
Working towards net zero will need to be embedded across all our clinical services now and into the future.

Ensuring that net zero and sustainability are considered and implemented in all the clinical services we provide is critical. This area of work will focus on what we can do, with this section considering carbon reduction opportunities in the way care is delivered.

Digital transformation
The use of technology clearly has a place in streamlining service delivery and supporting functions whilst improving the associated use of resources and reducing carbon emissions.

Travel and transport
Travel is one of the main causes of carbon emissions that Trusts are able to directly influence.

To address this source of Greenhouse Gas (GHG) there needs to be a huge cultural shift away from the reliance on the internal combustion engine (ICE). This means disincentivising the use of petrol- and diesel-powered cars for commuting, for service provision and by patients and visitors to any of our sites.

This can be achieved by providing alternatives; to try to reduce journeys, to increase the use of public transport, support and facilitate active travel and provide the necessary infrastructure to support non-ICE powered vehicles.

The Estate and facilities
The estate and how it is utilised has a huge impact on our carbon emissions. It is also an area that we have direct control on the associated greenhouse gases emitted as a result of using these buildings.

Whether it's the energy and water consumed, or the waste produced, the use of the estate currently results in carbon emissions that need to be addressed. This area of focus is broken down into a number of subject matters

- **Buildings**

We occupy a large number of buildings across the county, and beyond which differ in size, age and tenure. The building fabric has a huge impact upon the amount of energy that is utilised to run these buildings.

- **Energy and water usage**

The cheapest and most environmentally friendly energy we use is the energy we don't use. Ensuring that all viable energy efficiency measure have and are being taken is critical not only to reduce carbon emissions but also to reduce cost.

- **Waste reduction**

The less waste we produce the less environmental damage and less cost in disposal we incur.

Medicines

We need to examine the key opportunities to reduce the carbon emissions related to our prescribing and use of medicines and medical products. This includes reducing pharmaceutical waste and identifying opportunities to utilise lower carbon alternatives medicines.

The 2021/22 NHS Standard Contract set out inhalers and anaesthetic gases as two key areas for early action. For us these are both specific causes of carbon emissions that are not significant in our carbon emission inventory.

Supply chain and procurement

The supply of goods and services to the Trust has a huge impact on the associated carbon emission that we are responsible for - approximately 62%. Therefore, it is quite clear that procurement activities and decision making has a huge part to play in achieve net zero.

The procurement process can also allow us to influence our goods and service providers to address their own carbon emissions and set a net zero target. Procurement can also shape the internal goods purchased and selected by encouraging reuse and green alternative products.

Food and nutrition

The food we produce, serve and dispose of all contribute to the global warming. The consideration that needs to be taken into account are:
- The provision of healthier meal options
- The increased use of locally sourced food to minimise associated food miles and subsequent carbon emissions
- Shaping menus that maximise the opportunity of seasonal available food as well as minimising heavily processed foods. This is not only good for the environment, but also good for the consumers of such products

Adaptation

Ensuring that we're ready and able to meet the future challenges presented by a changing climate as a direct result in the increase in greenhouse gas emissions. This is resulting in more extreme weather events and will include two fundamental changes which are longer periods of hot weather and more extreme storms and intense levels of rainfall.

Offsetting

Offsetting all opportunities for carbon reduction have been exhausted. This is seen as very much a last resort and currently there appears to be consensus that it should not be considered at this stage of the journey to net zero.

Areas of Action

The areas of action that NHS England have set out are a vast range of interconnected subjects and actions. All of which must be embraced and actioned if net zero is to be achieved. But to achieve success entails certain actions and subject matters being initially prioritised.

This is the first of a number of Green Plans to take us to net zero, and it focuses on the key causes of carbon emissions that we can address now.

The table below highlights the areas that this green plan will focus on in relation to the NHS England wider set of areas of action.

NHS England Areas of action	BHFT Strategic Goals				
	cut carbon emissions	Stop polluting the environment	Improve health and wellbeing	Improve financial efficiency	enhance reputation
Workforce and system leadership			✔		✔
Sustainable models of care	✔	✔			
Digital transformation	✔			✔	
Travel and transport	✔	✔	✔		
The estate and facilities	✔	✔			
Medicines					
Supply chain and procurement	✔	✔			
Food and nutrition					
Offsetting					

It should be noted that the reason that medicines are not currently included in our strategic goals is because this NHS England area of action is focused on antithetic gases and metered dose inhalers. Neither of which are a major consideration for us.

Food and nutrition are a huge consideration in the decarbonisation of healthcare services. However, for us it makes up a relatively small proportion of our overall carbon emissions because of the small number of inpatient facilities.

The diagram below supports and helps to identify the areas that we need to focus on with this Green Plan to have the greatest impact upon carbon emissions.

NHS ACTIVITY TYPE
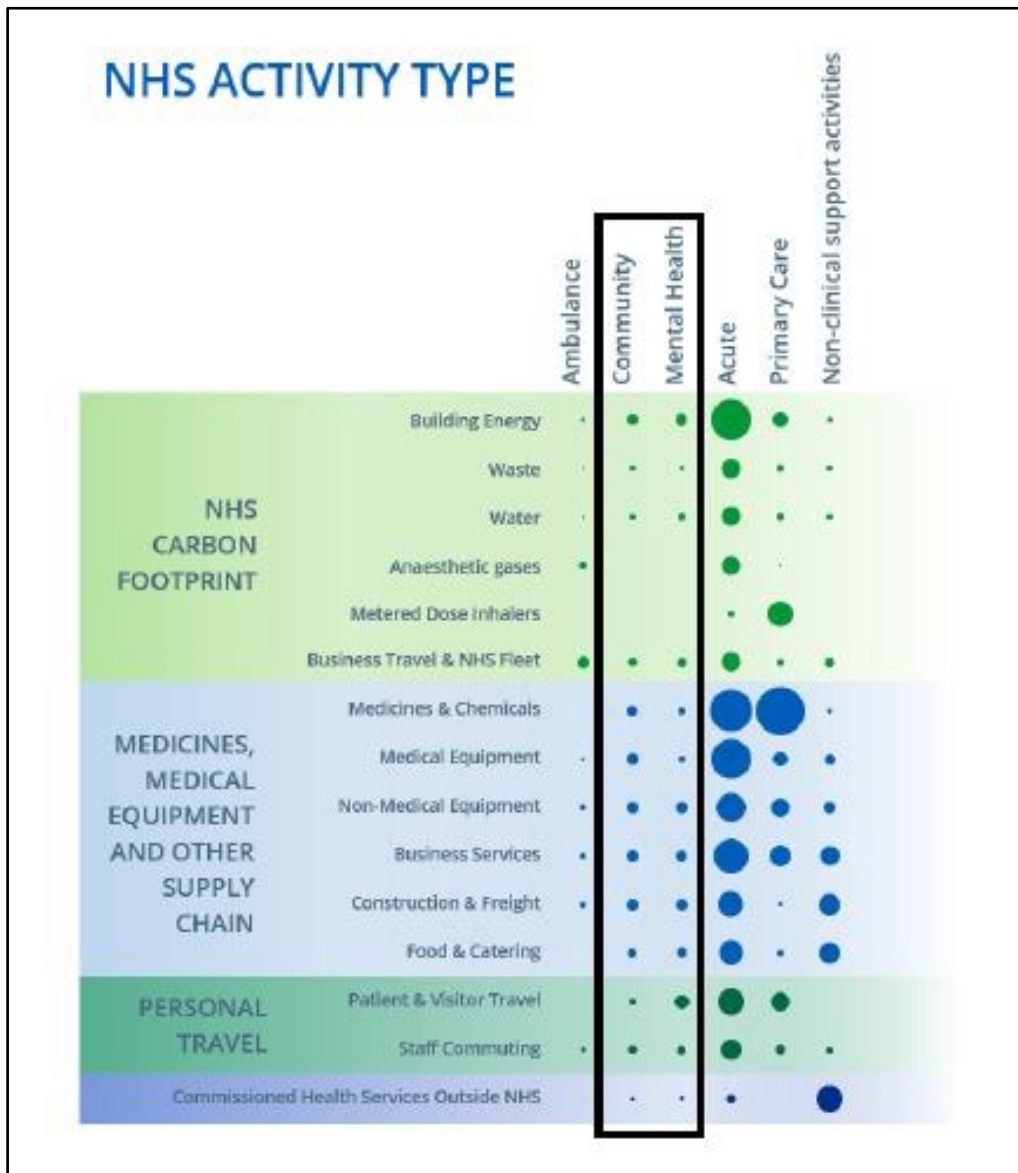
Delivering a 'Net Zero' National Health Service, NHS England and NHS Improvement, 2020

To achieve the strategic goals there are number of subject areas which will combine to ensure that the vision and supporting goals are embraced and met by the Trust. These subject areas are

- People
- Travel
- The Estate – utilities, waste, building / site
- Procurement
- Adaptation

The table below demonstrates the positive impact that each area of action will have on our strategic goals. It also highlights how a specific activity can have a contributing impact upon multiple goals.

		Our Strategic Goals				
		Cut carbon emissions	Stop polluting the environment	Improve health and wellbeing	Improve financial efficiency	Enhance reputation
Areas of Action	**People**	✓	✓	✓	✓	✓
	Travel	✓	✓	✓	✓	
	The estate • **Utilities** • **Waste** • **Buildings /site**	✓	✓	✓	✓	✓
	Procurement	✓			✓	
	Adaptation			✓	✓	✓

The one supporting universal factor is data and how this is vital in identifying and focusing action as well as measuring and monitoring progress and success in achieving a net zero organisation that delivers sustainable healthcare.

The indicative carbon emissions percentage figures, as a result of specific activities, is taken from NHS England guidance (see diagram on page 7 of this Plan). There are two areas that have been omitted from this plan, which are antithetic gases and metered dose inhalers (5%) and commissioned health services outside of the NHS (4%).

People - engage, invest, empower

In order for us to cut our carbon emissions and meet the net zero target we needs all staff to embrace, support and implement the necessary changes that have to take place.

To achieve this requires support, learning and easily found information. This will then allow an individual to make decision and take actions on a daily basis that will combine to create real change.

This also requires a string positive network facilitation to encourage and guide how staff can engage and put forward ideas and identify issues that need addressing.

What we will do
- Develop and support a network of net Zero'n'Green heroes
- Invest and maintain high quality intranet information and guidance for all staff to access
- Actively engage and use social media and sustainability activities
- Maintain high quality information on our website(s) for patients, public and other stakeholders
- Increase training for all staff - make it mandatory and include at induction
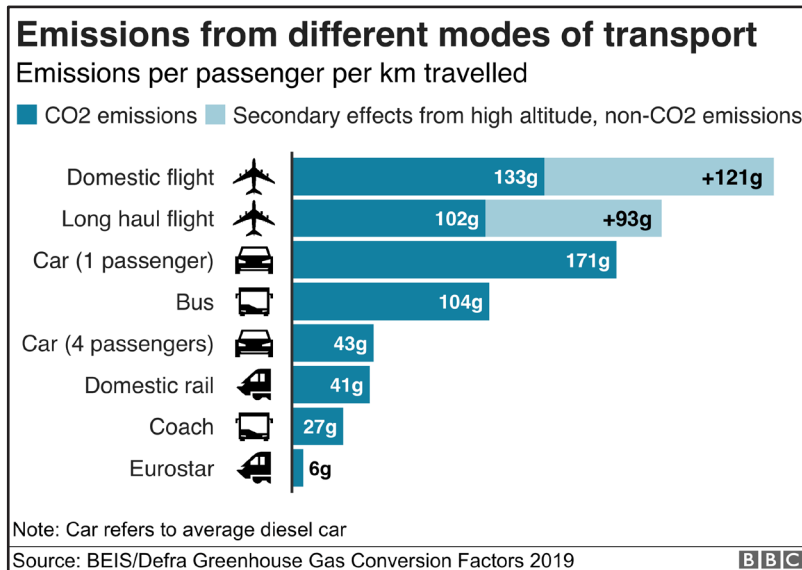
Travel – 14% of our carbon emissions

Travel and transport accounts for approximal 14% of our carbon footprint. This is made up of three distinct activity groups, which are.
- staff commuting - 4%
- healthcare delivery / business travel – 4%
- patient / visitor travel – 6%

This Green Plan will focus on the healthcare delivery activities requiring business travel and commuter travel.

The key for heading towards net zero is to reduce the amount of travel that relies on vehicles that are powered by the internal combustion engine (ICE). We have to actively encourage other forms of transport whilst actively discouraging the use of road vehicles which run on petrol or diesel.

As the diagram below demonstrates switching away from using an ICE powered car can have a dramatic impact upon the amount of carbon that is emitted.

Emissions from different modes of transport
Emissions per passenger per km travelled

■ CO2 emissions ■ Secondary effects from high altitude, non-CO2 emissions

Mode	CO2 emissions	Secondary effects
Domestic flight ✈	133g	+121g
Long haul flight ✈	102g	+93g
Car (1 passenger) 🚗	171g	
Bus 🚌	104g	
Car (4 passengers) 🚗	43g	
Domestic rail 🚆	41g	
Coach 🚌	27g	
Eurostar 🚆	6g	

Note: Car refers to average diesel car
Source: BEIS/Defra Greenhouse Gas Conversion Factors 2019   B B C

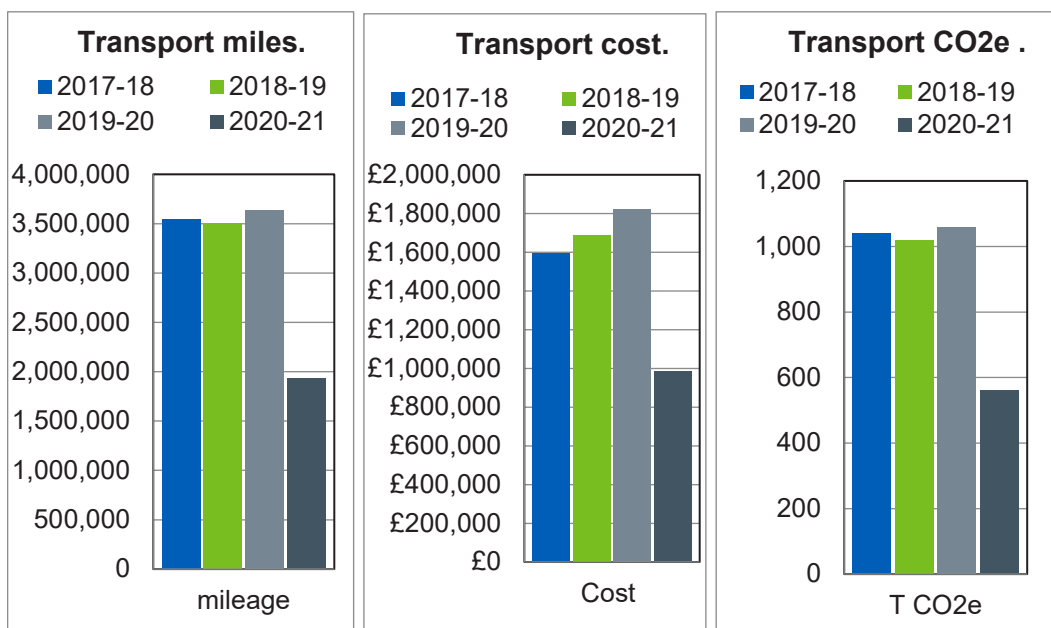https://www.bbc.co.uk/news/science-environment-49349566 viewed 1st Dec 2021

Noting that walking and cycling, which are not included in this diagram are zero grammes of CO2e/km travelled.

Business travel fact box

This demonstrates that switching how we get to our workplaces and then deliver the healthcare services can have a huge impact upon reducing this particular source of greenhouse gases.

On average we cause 1,000 tonnes of carbon emissions from driving 3,500,000 direct business miles at a cost to the Trust of over £1,800,000.

But looking at 2020-21 figures below (although it was an exceptional year due to the pandemic), they illustrate that working practises can make major changes to carbon emissions, as well as to operating costs.

Transport miles.
■ 2017-18 ■ 2018-19
■ 2019-20 ■ 2020-21

Transport cost.
■ 2017-18 ■ 2018-19
■ 2019-20 ■ 2020-21

Transport CO2e .
■ 2017-18 ■ 2018-19
■ 2019-20 ■ 2020-21

What we will do
To provide the necessary encouragement and facilities to decarbonise travel
- Measure and monitor all travel data from service delivery and commuting
- Review and implement the Trust-wide Green Travel Plan – including site specific plans
- Produce and implement Green Fleet Vehicle Strategy.
- Provide site specific information on all travel opportunities via our intranet and website(s)
- Roll out an electric vehicle charging network across all the larger sites
- Reclassify parking spaces to support alternatives to petrol / diesel powered vehicles.
- Actively develop and encourage active travel to get to and from our sites
- Commit to all leased vehicles to be ultra-low emissions vehicles (ULEVs) or zero emissions vehicles (ZEVs)

Support policy / strategy (existing and proposed)
- Trust wide Green Travel Plan
- Electric Vehicle policy
- Active Travel strategy

The Estate – 15% of our carbon emissions

The estate area of action includes the utility management and consumption, waste impacts as well as the buildings and sites that the Trust uses to provide its healthcare service. We provide a range of healthcare services from a large number of buildings and sites. These vary considerably by condition, age, size, tenure, energy management and energy efficiency.

From a carbon perspective there are two major sources of greenhouse gas that we must address, which are the electricity we consume and the gas we burn for heating.

To address the above we will need to apply all current best practise to improve energy efficiency, from improved awareness and better housekeeping to investing in the building fabric and improved energy efficient equipment and technology.
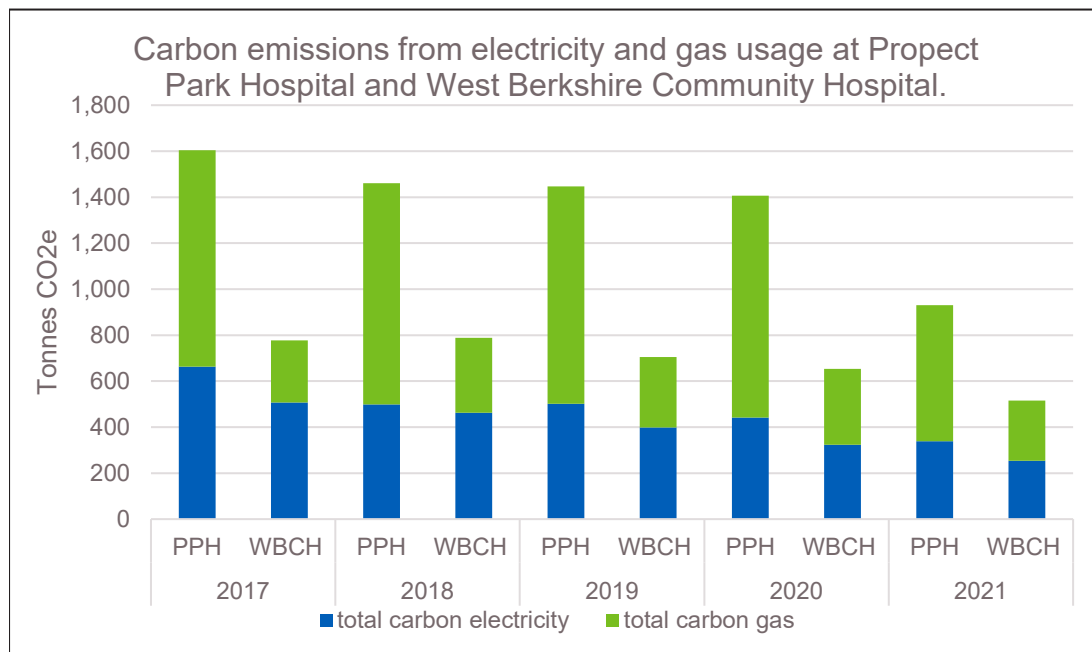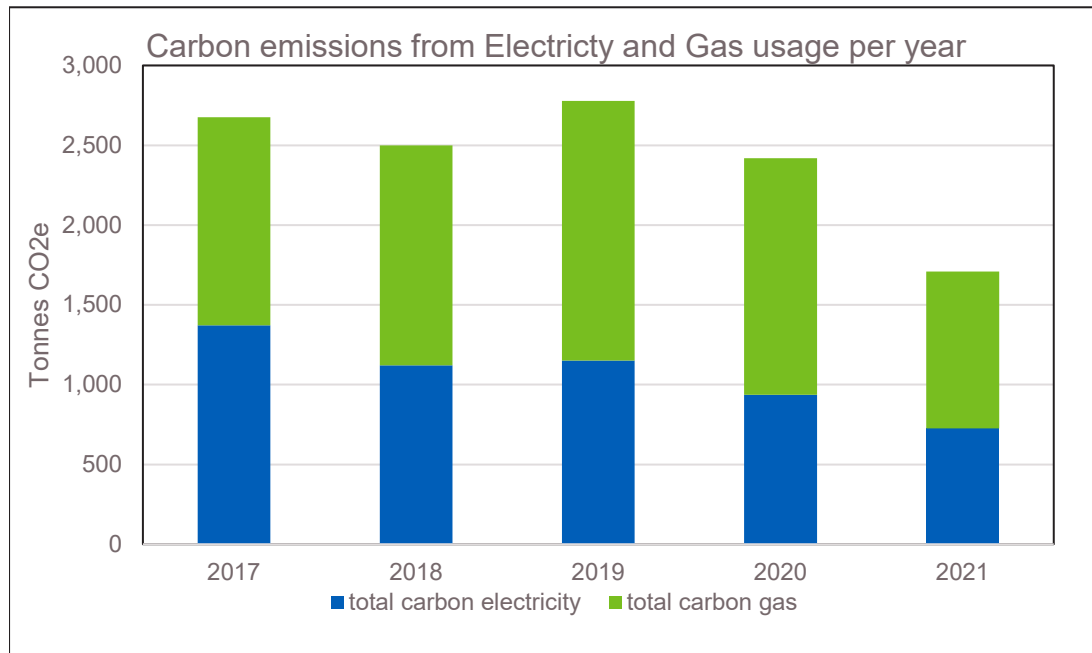
Utilities

The consumption of electricity, gas and to a lesser degree water result in a major contribution to our directly controllable carbon emissions. These sources of carbon are ones that we can and will reduce.

The graphs below highlight the challenge we face, and this is just for the sites where we have direct control of the utilities.

The 2021 figure for carbon emissions as a result of electricity consumption is shaded green to emphasise that this was the first year that we received electricity from renewable sources, which are backed by Renewable Energy Guarantees of Origin (REGO) so assisting the drive to net zero.

The graphs also demonstrate the challenge that we face to decarbonise our carbon emissions from gas consumed primarily for heating and hot water.

This graph shows the associated carbon emissions for the electricity and gas consumed on the sites where the Trust has direct control of the utilities.

Carbon from utilities fact box

What we will do
To decarbonise the utilities, we consume
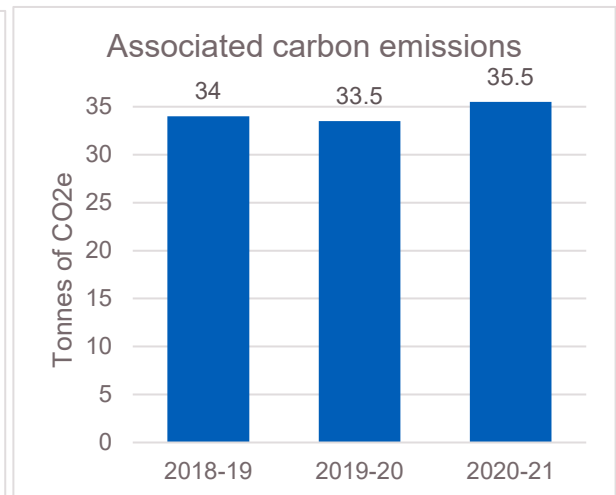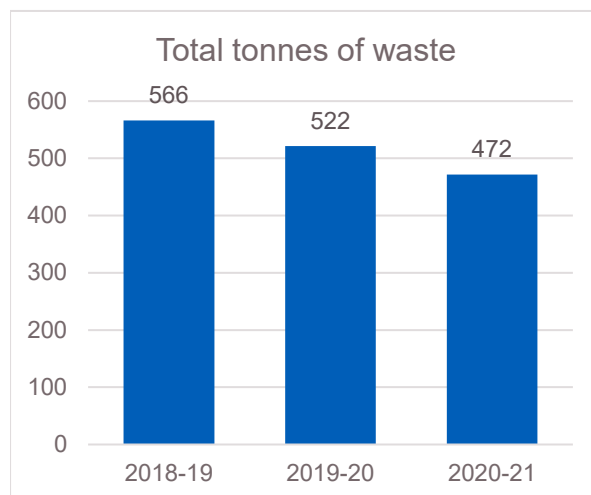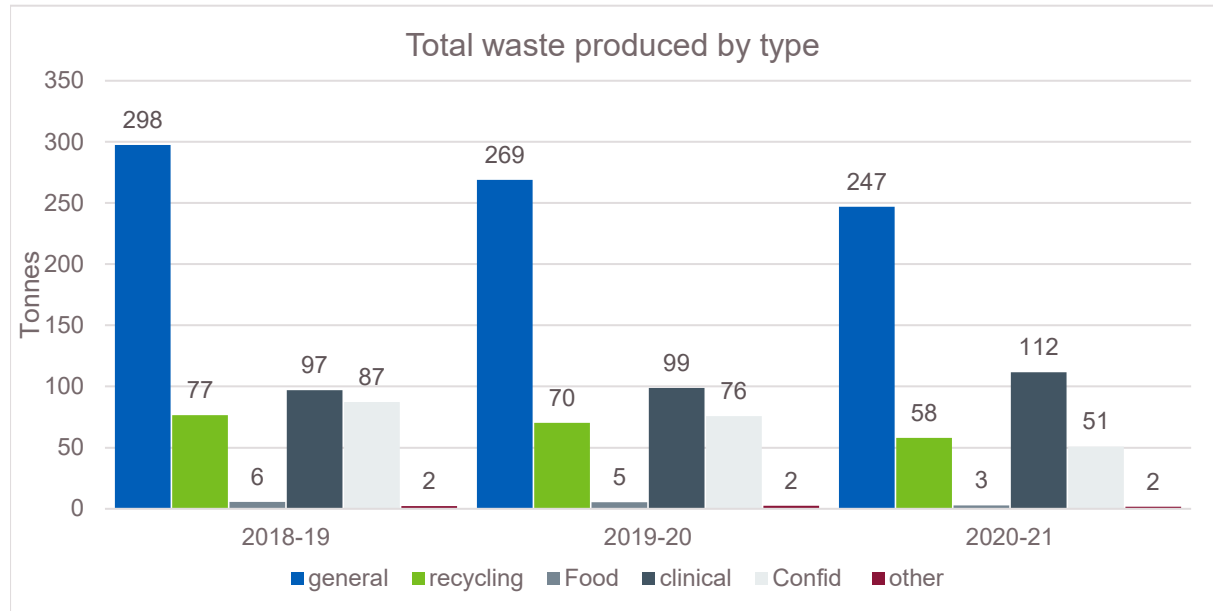- Increase and improve utility management, measuring and monitoring across for the whole Trust.
- All leased property owners / management to be aligned and committed to net zero (PFI's, NHSPS and private landlords).
- Reduce overall utility consumption
- Ensure all electricity consumed by us is from renewable generation (REGO certification)
- Decarbonise heating across all sites
- Instal renewable energy technology

Waste

We need to reduce the amount of waste we produce and are responsible for. Doing this will mean fewer resources are consumed. It will reduce the number of materials that need to be removed from site and it will reduce the associated carbon that is directly caused by waste and how it is processed.

Waste fact box

Waste is just a waste of money and resources. Over the last the three years we have seen a marginal drop in total waste

Total waste produced by type

Type	2018-19	2019-20	2020-21
general	298	269	247
recycling	77	70	58
Food	6	5	3
clinical	97	99	112
Confid	87	76	51
other	2	2	2

Total tonnes of waste

2018-19	2019-20	2020-21
566	522	472

Associated carbon emissions (Tonnes of CO2e)

2018-19	2019-20	2020-21
34	33.5	35.5

What we will do

To reduce the total waste generated by us

- Increase and improve the measuring and monitor of all waste arising
- Introduce medical equipment and office furniture reuse scheme
- Cut confidential waste – stop printing
- Stop using single use plastic items across all of our activities
- Increase trust-wide recycling
- Increase collection of food waste

Buildings and sites

The buildings we use need to be of a suitable condition to ensure the best levels of energy efficiency, that they are fit to cope with a changing climate and are enhanced to support health and wellbeing of all who work for and visit us.

We also need to enhance our estate from a biodiversity perspective, which includes maximising every available opportunity to plant more trees.

What we need to do
To improve and invest in our estate so it is fit for purpose and supports net zero target

- All capital projects reviewed and assessed to ensure contribution to net zero and sustainability is adequately assessed.
- All future building selection to have net zero as a key consideration
- Set an energy certification threshold level – EPC / DEC / BREEAM rating for building selection.
- Invest in the decarbonisation of building heating and hot water
- Formulate a Trust-wide biodiversity strategy
- Increase planting and tree cover on all sites.

Procurement – 62% of our carbon emissions

The purchase of goods and services accounts for nearly two thirds of our total carbon footprint. Therefore, there needs to be clear focus and consideration in tackling this part of our total greenhouse gas emissions.

This source of carbon emissions is grouped by NHS England as being a part of the NHS's carbon footprint plus or sources that are indirectly controlled by the Trust.

The key and fundamental objective for us is to influence all our goods and service providers to ensure that they are net zero aligned and are taking actions to remove carbon for their operation activities.

What we will do
To make net zero a key consideration for all procurement activities and no longer purchase from suppliers that do not meet or exceed a commitment to be net zero.

- Increase and improve the measuring and monitoring of associate carbon emissions from all goods and service providers
- increase the scope and weight given to contracts and product selection that support and directly reduce associated carbon emissions.
- To only purchase products or services from suppliers that are aligned with net zero commitments
- All contract meetings to be carbon neutral
- Review and select only procurement frameworks that have committed to a net zero target

Adaptation

The is a clear need to adjust and prepare for the change in weather patterns that we will experience as a result of climate change. There will be an increase in extreme weather events which will result in increasing periods of hot weather and more intense storms and rainfall.

The impacts of flooding can be split into two distinct areas, which are direct and indirect.

Direct impact - includes localised flooding on, near or around our estate and includes building fabric failure, drainage systems being overwhelmed

Indirect impact - includes flooding that affects transport infrastructure failures and wider services disruption, for example waste collection and pharmaceutics deliveries. There is also the potential increase in service demand as a result of social care and other NHS Trust facilities being flooded, which would increase pressure on our own sites and services.

What we will do
Ensure that we are prepared and ready for a changing climate
- Implement Climate Change Adaptation strategy
- Require all third-party organisations to include extreme weather impacts in their business continuity plans
- Increase the ability to maintain appropriate temperatures and across patient areas
- Focus on Investing and installing non mechanical cooling infrastructure - shading, insulation, natural ventilation
- Increase tree coverage to provide shading and flood prevention
- Review direct (local) and indirect (region) flood risks and mitigate

The way forward

Now the action needs to begin. The implementation of this Green Plan will allow us to make considerable inroads into reducing our carbon emissions. It will also ensure that change is introduced that will increase our sustainability credentials and reputation.

The Green Plan is very much an umbrella strategy and as such will result in a number of subject-specific strategies which will be focussed, targeted actions. These will include,

- Trust-wide Green Travel Plan
- Site specific Green Travel Plans
- Green Fleet Vehicle Strategy
- Waste Reduction Strategy
- Biodiversity Strategy
- Climate Change Adaptation Strategy

This Green Plan (2022-25) is the start of the Greener NHS programme and will set the foundation for future green plans.

The Action Plan

Please not the Capex figures identified below are indicative and are a clear indication of the type of investment potentially needed to complete a specific action.

Responsibility Key

SM – Sustainability Manager, Mar – Marcoms,   L&D-Learning and Development, E – Estates, FM – Facilities, 3rd Party FM – NHSPS, ISS, Bellrock, private landlords, F – Finance, CSM – Clinical Service Managers, P – Procurement, CE - Clinical engagement / input, EP – EPRR Manager, PM – Property Manager

								Strategic Goals				
Area of Action		**People**						**Cut carbon emission**	**Stop polluting**	**Health and wellbeing**	**Financial efficiency**	**Reputation**
Objective		Increase the resources to ensure full staff engagement and support.		**Target**		All staff to receive training and or have access to net zero n green hero network by 2023						
		Action	**Responsibility**	**Resource**	**Capex**	**By**	**Outcome**					
1.		Develop and support network of net Zero'n'Green hero's	SM,	Staff time Admin support	£20K pa	2023	• A support team of likeminded staff helping to deliver the trust wide changes that endorse net zero and embrace sustainable healthcare	✓	✓	✓		✓
2.		Invest and maintain high quality website / intranet information and guidance for all staff, patients, public and other stakeholders to access	SM, Mar	Staff time consultant	£25k pa	2022	• Provide information to all to empower and enable individuals to make change to achieve net zero and implementing	✓				✓
3.		Actively engage and use social media and sustainability activities	SM, Mar	Staff time		2022	• Utilise this form of communication to inform and promote what the organisation is doing to meet its			✓		✓
4.		Increase training to all staff - make it mandatory and include at induction	SM, L&D	Staff time		2023	• Raise awareness and encourage action by all staff • Ensure all staff engaged in decarbonising BHFT	✓				✓
								Strategic Goals				

Area of action	Travel					

Objective	To boost and facilitate the decarbonisation of all trust activities	Target	To reduce by 50% staff commuting and business travel using ICE 2025

#	Action	Responsibility	Resource	Capex	By	Outcome	Cut carbon emission	Stop polluting	Health and wellbeing	Financial efficiency	Reputation
5.	Measure and monitor all travel data from service delivery and commuting.	SM, F,	Staff time Consultant Software	£5k pa	2023	• Identify change and demonstrate success. Also focus activity where failings are identified. • Promote success.	✓	✓	✓	✓	
6.	Review and implement Trust-wide Green Travel Plan and site-specific plans	SM, FM, E	Staff time Link to Act.7,9,10		2023	• Provide clear alternatives to petrol or diesel powered vehicles. • Reclassify parking spaces to support alternatives to petrol / diesel powered vehicles.					
7.	Provide site specific information on all travel opportunities via intranet and website(s)	SM, M, FM 3rd Party FM	Staff time Link to Action 2	£10k pa	2023	• Actively encourage commuting and busine travel away from ICE powered vehicles.		✓	✓		
8.	Produce and implement Green Fleet Vehicle Strategy.	SM, FM, E, F, Ser M	Staff time Link to Act. 11		2023	• A strategy setting out clear direction regarding Trust owned / leased road vehicles. • Implementation will reduce associated carbon emissions				✓	✓
9.	Roll out an electric vehicle charging network across all the larger sites	E, FM, 3rd Party FM	Link to Act.6, 7,10	£50k pa	On going	• The more chargers there are the more confidence there will be in make the switch to EV's	✓	✓			✓
10.	Promote, develop and encourage active travel	SM, E, FM, M, Mar	Link to Act.6, 7,9	£50k pa	On going	• Benefit health and wellbeing of staff • Enhance Trust reputation • Cut carbon from commuting and business travel • Cut air pollution caused by petrol and diesel powered vehicles	✓	✓	✓		✓
11.	Commit to all leased vehicles to be ultra-low emissions vehicles (ULEVs) or zero emissions vehicles (ZEVs).	SM, F, Finance, CSM	Staff time Link to Action 8		2022	• Decarbonise trust lease / owned fleet • Set a clear example and commitment to remove petrol and diesel powered vehicles from the Trust	✓	✓			✓

Area of Action	Estate – Utilities						Cut carbon emission	Stop polluting	Health and wellbeing	Financial efficiency	Reputation
Objective	To decarbonise the utilities consumed by the Trust			**Target**	To reduce carbon emission by from 50% gas and electricity usage by 2025						
	Action	**Responsibility**	**Resource**	**Capex**	**By**	**Outcome**					
12.	Increase and improve utility management, measuring and monitoring across for the whole Trust.	SM, PM 3rd party FM	Staff Time		2022	• Clear and detailed understanding of consumption, cost and carbon. • Use to inform and target direct actions • Meet all external reporting requirements	✓			✓	✓
13.	All leased property owners / management to be aligned and committed to net zero (PFI's, NHSPS and private landlords).	SM, PM	Staff time		2022	• Will ensure indirect emissions are being reduced • Will ensure direct emissions are being reduced	✓				✓
14.	Reduce overall utility consumption	All staff	Staff time Link to action 1,2,3,4	£10k	On going	• By cutting consumption the Trust will save money and reduce its directly controlled carbon emissions.	✓			✓	
15.	Ensure **All** electricity consumed by the Trust is from renewable generation (REGO certification)	SM, PM	Staff Time	Policy decision	2022	• This will mean that the Trust has removed via a purchasing decision this source of carbon emissions that it directly controls from its total carbon inventory.	✓			✓	✓
16.	Decarbonise heating across all sites	SM, E, 3rd party FM	Staff time, Consultant, Contractors	Depend on project size	2023	• Reduce and remove a directly controlled source of carbon. • Contribute to meeting net zero target • Reduce operational costs	✓			✓	✓
17.	Instal renewable energy technology (Solar PV is the primary option)	SM, E	Staff time, Consultant, Contractors	Depend on project size	2025	• Energy supply security • Energy cost security • Generate income • Enhanced reputation • Maximising trust assets to improve financial position	✓			✓	✓

Area of Action	Estate – Waste									
Objective	To reduce the total waste generated by the Trust		**Target**	To reduce the amount of waste generated by the Trust by 10% by 2023.						
	Action	**Responsibility**	**resource**	**Capex**	**By**	**Outcome**				
18.	Increase and improve the measuring and monitor of all waste arisings.	SM, FM, 3rd Party FM	Staff time	£10k pa	2022	• Provide improved data on the Trust waste arisings to inform and identify targeted actions . • Meet all mandated reporting.	✓		✓	✓
19.	Introduce medical equipment and office furniture reuse scheme	SM, FM, E, CE	Staff time	£15k pa	2024	• Save money by not buying new equipment and diverting equipment from waste stream	✓		✓	✓
20.	Cut confidential waste	All staff	Staff time Training – link to Action 2, 4		2022	• Reduce consumption of paper usage, reduce printer consumable, reduce confidential waste. • Reduce operational costs. • Printer and paper cost = £400k pa creates 134 tonnes of paper waste.	✓		✓	✓
21.	Stop using single use plastic items wherever possible.	All staff P, CE	Staff time Policy decision		2022	• Stop using oil based resource • Reduce waste generation • Enhance trust reputation	✓	✓		✓
22.	Increase Trust wide recycling	SM, FM, E All staff	Policy decision		2022	• Reduce general waste tonnage • Enhance trust reputation		✓		✓
23.	Increase collection of food waste	FM, 3rd Party FM P	Policy decision	£5k pa	2023	• Reduce contribution to carbon emissions • Reduce general waste	✓	✓		✓

Area of Action	Estate – Buildings and Site									
Objective	Improve the estate to achieve net zero target and enable sustainable healthcare		**Target**	All Trust buildings to have met a minimum energy rating by 2025 and all sites to have at least one tree pant project by 2023						
	Action	**Responsibility**	**resource**	**Capex**	**By**	**Outcome**				
24.	All capital projects to contribution to net zero and sustainability.	SM, E,	Staff time Consultants Contractors	Link to act. 16	2022	• Net zero and sustainability are inclusive and considered at project inception. •	✓			✓
25.	Net zero to be a key consideration for all building and site selection.	SM, E,	Policy decision		2022	• Save utility running cost • Increase trust reputation • Reduce direct controlled carbon emissions	✓		✓	✓
26.	Set energy rating threshold for EPC / DEC / BREEAM certification.	E, PM	Policy decision		2022	• Ensure all buildings that the Trust use meet a minimum energy rating • Reduce utility expenditure	✓		✓	✓
27.	Inform and guide all on energy efficiency actions	SM, E,	link to action2 consultant	£20k	2022	• Reduce utility expenditure • Enhance reputation • Staff engagement and support				
28.	Formulate and implement Trust wide biodiversity strategy	SM, E, 3rd Party FM	Staff time, Consultant Contractor	£15k	2023	• Will ensure that the trust is meeting future environmental legislation • Improve health and wellbeing provision for staff and patients. • Support the rewilding and greening of all sites •	✓		✓	✓
29.	Increase planting and tree cover on all sites.	SM, E, 3rd Party FM	Staff time, Consultant Contractor	£20k pa	2023	• Trees will absorb and store carbon • The enhance the environment – air quality, reduce flooding, screen noise, • Enhance health and wellbeing for staff and patients • Enhance Trust reputation	✓ ✓	✓	✓	✓

Area of Action	Procurement						Strategic Goals				

Objective	To make Net Zero a key consideration for all procurement activities.		Target	All procurement activities to consider and promote net zero and sustainable products and service by 2025			Cut carbon emission	Stop polluting	Health and wellbeing	Financial efficiency	Reputation
	Action	**Responsibility**	**resource**	**Capex**	**By**	**outcome**					
30.	Increase and improve the measuring and monitoring of associate carbon emissions from all good and service providers	SM, P	Staff time		2022	• Provide detailed information on the actual carbon associated to the services / products provided to the trust	✓				✓
31.	Increase the scope and weight given to contracts and product selection that are aligned with net zero commitments and sustainability.	SM, P	Staff Time	Policy decision	2022	• Support and encourage all product and service providers to address their carbon emissions. • Enhance Trust reputation and leadership in relation to net zero and sustainability healthcare provision	✓	✓			✓
32.	Apply and develop Sustainable Procurement Policy to ensure the Trust uses frameworks and purchases products or services from suppliers that are aligned with net zero commitments and sustainability	SM, P	Staff time	Policy decision	2022	• Support and encourage all product and service providers to address their carbon emissions. • Enhance Trust reputation and leadership in relation to net zero and sustainability healthcare provision	✓	✓			✓

Area of Action	Adaptation						Strategic Goals				
Objective	Ensure that the Trust is prepared a changing climate		Target	Proactive and planning in place to manage extreme weather events by 2023			Cut carbon emission	Stop polluting	Health and wellbeing	Financial efficiency	Reputation
	Action	Responsibility	resource	Capex	By	Outcome					
33.	Implement Climate Change Adaptation Strategy	SM, E, FM, CE	Staff time		2023	• The trust is prepared for changing weather patterns and the impact upon healthcare demands and delivery. • Implementation will reduce financial impacts as a result of extreme weather conditions			✓	✓	✓
34.	Require all third-party organisations to include extreme weather impacts in their business continuity plans.	SM, P, EP	Staff Time		2023	• Receive assurance that third party service providers have planned for extreme weather condition to ensure service continuity.				✓	✓
35.	Increase the ability to maintain appropriate temperatures and across patient areas.	E, FM, CE	Staff time, Consultants	£20k pa	2023	• Improved monitoring of temperatures allowing focused actions	✓		✓	✓	✓
36.	Invest and instal nonmechanical cooling infrastructure - shading, insulation, natural ventilation	E, CE	Staff time, Consultants	£50k pa	2023	• Improved internal conditions for patients and staff. • Reduce the need for retrofit AC installations – save Capex • More energy efficient and so save money	✓		✓	✓	
37.	Increase tree coverage to provide shading and flood prevention	SM, E, 3rd Party FM	Staff time, Contractor	Link to Action 28	2023	• Improve site biodiversity and rewilding • support carbon sequestration – imperative for net zero • support health and wellbeing for patients and staff • Increase reputation by enhancing site appears	✓		✓	✓	✓
38.	Review direct (local) and indirect (region) flood risks and mitigate.	SM, EP, E	Staff time, consultants	£20k	2022	• Link into all EPBC activities • Identify potential site specific flood risks • Raise awareness and indirect impacts upon the trust form wider reginal flooding.				✓	✓