NHS

Birmingham and Solihull Mental Health

NHS Foundation Trust

Carbon Net Zero – “Our Green Plan 2021 - 2026”

Prepared in partnership with

SSL+

Contents

Foreword

‘Our Green Plan’ represents a journey of how the Birmingham and Solihull Mental Health Foundation Trust (BSMHFT) will move towards Carbon Net Zero.

This document will embed Environmental and Sustainability principles further into our Business As Usual processes – aiming to create a Green currency and a new way of describing information, values or targets equivalent to that of financial.

This Green Plan has been written in two stages:

The First Stage reflects on our journey so far and our reasons to embark on it, including the premise for our targets and many of the interventions needed for us to reach them.

At this First Stage, the Plan deliberately avoids the setting of baseline and associated gap analysis due to Regional and National reports / instructions and data publications expected in summer 2022 that must be considered before finalising such important information and metrics.

At the Second Stage of this Plan, we expect further details and more in-depth targets in late 2022 / early 2023.Again, this will be subject to further Board approval.

An indispensable characteristic of each of these stages is Recognition. As this Plan will demonstrate, there are many challenges ahead. However, we all should pause and recognise the significant progress that the Trust has made to date, its’ Regional and National recognition and the many interventions already achieved, in progress and planned.

We hope that this plan has been written for BSMHFT in such a manner that it will be owned, developed, and delivered by all members of the Trust: Executives

Dave Tomlinson - Executive Director of Finance and Winston Weir - Non-Executive Director

Progress to date – recognising our achievements

- Won national HSJ in 2009 and Finalists again in 2010. Been recognised by NHSE/I for reporting
- Has Board level Executive Director and Non-Executive Director Leadership and strategic framework
- Has leadership and Management through SSL via the Corporate Property and Sustainability Manager and Operational Director
- Has been recognised previously for Sustainability reporting best practice
- Been improving processes over several years to inform medicine management and reduce Medicine wastage and excess stock
- Reflect the BSol ICO position on Sustainability and their Green Plan
- Food waste recycling introduction at all sites with production kitchens and large patient/ staff food production quantities
- Movement of all electricity supply procured to net zero carbon for 2022/23
- Evolve through natural lifecycle on fleet vehicles replacing with hybrid/fully electric vehicles.
- Installation of fleet electric vehicle charging points strategically across the Trust and SSL estate.
- Achieve and maintain excellent waste management data, whereby less than 1% of all waste going to landfill
- Develop partnerships whereby we achieve free one week bus passes for all Trust/ SSL starters, plus looking to expand this partnership for further discounts for regular passengers
- Installed Ground Source Heat Pumps
- Rationalised buildings to mitigated wasted space and promote efficiencies
- Already started to introduce electric / electric hybrid fleet vehicles and associated fleet charging points
- Normalised building improvements / capital and revenue schemes to include modern energy efficient and environmentally prudent components - such as LED lighting, heating and lighting controls and insulation
- Has already reduced its Carbon equivalent (scope 1 and 2 (aspects of) emissions) from 2008 baseline by in excess of 50%

Introduction

"*While the NHS is already a world leader in sustainability, as the biggest employer in this country and comprising nearly a tenth of the UK economy, we're both part of the problem and part of the solution.*

That's why we are mobilising our 1.3 million staff to take action for a greener NHS, and it's why we have worked with the world's leading experts to help set a practical, evidence-based and ambitious route map and date for the NHS to reach net zero."
Sir Simon Stevens, former NHS Chief Executive

A sustainable society is a thriving, inclusive society with cultural vitality, which uses its resources efficiently and sensibly, has a pleasant and healthy environment, which is treated responsibly and sensitively whilst meeting social needs.

For Birmingham and Solihull Mental Health Foundation Trust (BSMHFT) this means continuing to provide the same high or a further enhanced standard of healthcare for all our service users whilst managing our resources better and minimising our negative impact on the environment.

Our climate is changing for the worse due to our actions and is threatening our quality of life by impacting our health, environment, economy, and society. We now know that the main cause of climate change is the emission of greenhouse gases, of which carbon dioxide (CO_2) and methane are the most significant.

We are all experiencing the impacts of climate change and Birmingham and Solihull will increasingly be affected by climate change resulting from previously emitted CO_2 and methane.

We must be prepared for this, with our four clear overarching priorities being:

- Sustainable production and consumption – working towards achieving more with less, reducing the inefficient use of resources and breaking the link between economic growth and environmental degradation.
- Natural resource protection and environmental enhancement – protecting and replacing the natural resources which we depend on.
- Sustainable communities – creating places where people want to live and work in, now and in the future.

- Climate change and energy – confronting the greatest threat by changing the way we use, procure, and generate energy.

The Trust has won and been finalists at several Health Service Journal awards for its approach to Sustainable Development. In addition, the Sustainability and Carbon reporting undertaken by Summerhill Services Ltd (SSL) on behalf of the Trust has been recognised nationally as an exemplar of best practice.

To continue the success of the work already done, the Trust already has plans and strategy in place that are being amalgamated into this single Green Plan and accompanying Area of Focus Action Plans to allow for joined up delivery and real outputs.

Executive Summary

BSMHFT is committed to the principles of Sustainable Development and will progressively integrate these principles into our daily activities.

Through our work with the Department of Health, NHSI/E, other Government departments and our communities we will seek to increase awareness of sustainability and to ensure that our activities support the achievement of sustainable development objectives wherever possible, whilst underpinning the improvement of health and well-being.

Investment will be needed in greener technologies, renewable energy, heat decarbonisation and in ensuring that staff and contractors have the ability and knowledge necessary to support and lead positive changes.

This Plan and Actions need to be owned by all within the Trust, with staff and contractors empowered to make and promote sustainable choices and changes.

It must be recognised that the 'big ticket' items do not always have the greatest impact. Instead, many quick wins at a team and site basis can make a huge impact on the Environmental efficiencies, Carbon emissions and the Sustainability of the Healthcare delivered by and within BSMHFT.

The Trust will need to balance its resources and prioritise accordingly. Patient wellbeing and safety will always come first when considering investment and budgets. Therefore, the organisation must recognise that interventions and ways of working that provide the right direction of travel must be developed without creating a strain on our resources.

This Plan places actions onto teams and individuals to lead and own, benchmark, and deliver real outputs. Although written by SSL on behalf of the Trust, this Plan is not SSL's and it is not SSL's remit to deliver it. However, SSL will help with Green Plan delivery such as within the Estates and Facilities, Travel and Transport, and Food and Nutrition areas of focus.

As per the BSMHFT 2007 Strategy, the ethos and practices of Sustainable Development in its many descriptors must be accepted and owned by all.

Birmingham & Solihull Mental Health NHS Foundation Trust in 2020/21

- Key Services:

In Patient, Specialist Services and Community mental health services

- Services Including:

Assertive outreach, Adult Acute, Crisis resolution, Child and Adolescent mental health (CAMHS), Community mental health, Day treatment, Early intervention, Eating disorders, Forensic mental health, forensic psychiatry, Homeless services, Memory, Neuro-psychology (CBT), Specialist Older Adult Services, Psychiatric, Perinatal mental health, support and recovery.

- Geography:

We provide mental health hospital and community care for the people of Birmingham and Solihull from our sites across the region and National Specialist Services.

- Number of operational Sites: 44
- Footprint of operational Sites: 89,000m2
- Number of Employees: 4,000+ employees
- Inpatient Beds: Circa 700 beds in use at any one time

Trust Key Resources & Baseline Data (Full scope 3 Carbon Data to be established)

- Building Energy: 32.8 million kWh or 32.8 GW
- Baseline year: 2019/20
- Waste arisings: 965.7 tonnes
- Water supplied: 96,896m3
- Procurement activity: £41,812,367
- Patient/visitor/commuting travel: 34,453,615 km

Organisational Vision

Vision & Objectives

- Embedding (continuing to embed) sustainability and low carbon principles into decisions made within BSMHFT and the services provided.
- Invest in renewable and decarbonised energy – using whole life costs to drive decision making and procurement processes. Putting a material value on doing the right thing and ‘our’ reputation.
- Reduce omissions aiming for that aspirational Zero (net) Carbon status – To support and embrace the NHS (net) Zero carbon commitment. Focussing on key areas that the Trust can influence such as Staff behaviour, Procurement, Buildings, Pharmaceuticals, Vehicles and Journeys and Energy consumption
- Procurement based on whole life cost and not purchase price!
- Ensure that sustainability, carbon mitigation (zero), energy and other environmental initiatives including ‘greening of fleet’ and ‘green’ methods of construction and operation are inclusive and embedded into such procurement and developments. Ensuring that lead contractors are tendered for and appointed based on ‘best £’ and ‘quality’ including environmental impact. Ensuring that BREEAM assessments are undertaken.
- Reduce waste and being more resource responsible (be that energy, time, products, processes)
- Positively influence providers, partners, suppliers, stakeholders, contractors
- Be the Trust of choice based on Sustainable Development credentials, being rightly recognised regionally and nationally re best practice.
- Empower Staff and contractors to make the right decisions and to take a controlled risk where needed to promote change
- Support and empower our service users to be more sustainable in the way they live their lives both within our care and when residing within the wider community

The Green Plan adds further environmental and social dimensions to the delivery of care, especially in terms of the widely accepted climate and ecological crisis.

Green Plan Vision

Net Zero: resource consumption and Greenhouse Gas (GHG) emission reductions that align with NHS net zero targets and mitigate against climate change.

Climate Resilience: adaptation strategies that strengthen the Trust's ability to maintain quality care and provide a basis for us to become a climate change resilient organisation.

Social Value: actions that influence the collective social wellbeing of patients, staff and surrounding community.

The Green Plan has nine Areas of Focus that appraise the Trust's status and set actions to be achieved within the next three years:

1. Workforce and Systems Leadership
2. Sustainable Models of Care
3. Digital Transformation
4. Travel and Transport
5. Estates and Facilities
6. Medicines
7. Supply Chain and Procurement
8. Food and Nutrition
9. Adaptation

Drivers for Change

BSMHFT is committed to deliver the NHS Long Term Plan, Standard Contract, and the recommendations in the Priorities and Operational Planning Guidance and '*Delivering a Net Zero NHS*' report, all of which have informed the Green Plan and shape the Trust's Vision.

The Trust will work through this plan to fulfil sustainable development requirements from the NHS (as shown in Figure 1) and other relevant legislation (as listed on the next page in Figure 2) that are aligned with the relevant United Nations (UN) Sustainable Development Goals (SDGs). This includes obligations to minimise adverse impacts on the environment and secure wider social, economic and environmental benefits for communities.

To explain these requirements further, there are two recent examples to draw from:

Carbon (Net) Zero

The NHS has recently become the first National Health system to commit to become 'Carbon (Net) Zero' by adopting a multiyear plan with clear deliverables and milestones. The plan sees the NHS formally adopt two key targets, these being:

- For the NHS carbon footprint (emissions under its direct control) to be net zero by 2040 with an ambition for an interim 80% reduction being achieved by between 2028 and 2032, and
- For the NHS Carbon footprint (emissions which also includes wider supply chain) to be net zero by 2045 with an ambition for an interim 80% reduction by between 2036 and 2039.

In setting these targets It should be recognised that the 'NHS' has already made considerable progress in reducing its footprint with an estimated achievement of a 62% reduction in emissions – well exceeding the 37% requirement for 2020 as outlined in the Climate Changes Act as delivered against a 1990 baseline.

Ultimately it is these future National targets that should be recognised by BSMHFT. Also, not clear at the time of drafting this Document how the data and Carbon % reduction will be disaggregated, recorded and reported and whether nationally any interim milestones will be set. Obviously BSMHFT as an NHS provider will need to work with such priorities and targets as they happen – with Actions as detailed in the plan all aiming at improving the Trusts position.

The Carbon (Net) Zero commitment includes many challenges for the NHS which have been paraphrased and included within the Action Plan appendix. The same also recognises that there will still be carbon associated with Travel / Waste / Energy and where this exists then part of the commitment includes the offsetting of such associated Carbon (financial investment in Carbon mitigation schemes such as planting tress / promotion and preservation of active swamplands. NHS Trusts will need to start to plan for and accrue for this commitment!

In October 2020, Delivering a "Net Zero National Health Service" was published which lays out the direction, scale and pace of change required to meet the challenge. It describes an iterative and adaptive approach, which will periodically review progress and aims to increase the level of ambition over time. The report identifies 8 interventions the NHS is required to implement in order to meet these targets:

1. Our care by developing a framework to evaluate carbon reduction associated with new models of care being considered and implemented as part of the NHS Long Term Plan.

2. Our medicines and supply chain by working with our suppliers to ensure that all of them meet or exceed our commitment on net zero emissions before the end of the decade.
3. Our transport and travel by working towards road-testing for what would be the world's first zero-emission ambulance by 2022, with a shift to zero emission vehicles by 2032 feasible for the rest of the fleet.
4. Our innovation by ensuring the digital transformation agenda aligns with our ambition to be a net zero health service and implementing a net zero horizon scanning function to identify future pipeline innovations.
5. Our hospitals by supporting the construction of 40 new 'net zero hospitals' as part of the government's Health Infrastructure Plan with a new Net Zero Carbon Hospital Standard.
6. Our heating and lighting by completing a £50 million LED lighting replacement programme, which, expanded across the entire NHS, would improve patient comfort and save over £3 billion during the coming three decades.
7. Our adaptation efforts by building resilience and adaptation into the heart of our net zero agenda, and vice versa, with the third Health and Social Care Sector Climate Change Adaptation Report in the coming months.
8. Our values and our governance by supporting an update to the NHS Constitution to include the response to climate change, launching a new national programme for a greener NHS, and ensuring that every NHS organisation has a board-level net zero lead, making it clear that this is a key responsibility for all our staff.

Greener NHS Programme

Supporting the Net Zero Carbon commitment being the Greener NHS Programme 2020/21 onwards. This Programme recognises that COVID-19 has led to resource's being 'taken off greener NHS work' and that challenges are faced by the Regions as a result of this. The Programme also recognises adversely that improvements have been experienced in climate change related issues, such as improved air quality due to reduced commuting and travel. NHS Trusts are encouraged to learn from their experiences of working as partnerships and collaborations to respond to COVID-19, and they are expected to incorporate benefits from COVID-19 into their own plans and into regional Greener NHS plans.

As with the Carbon (Net) Zero the challenges described within the Greener NHS Programme have been paraphrased and included within the Action Plan.

The Trust commits to review and participate in regional partnerships and strategies related to sustainable development wherever appropriate, in addition to our national commitments.

Priority	Link to our Green Plan
NHS Long Term Plan (LTP)	**2.18** Take action on healthy NHS premises. **2.21** Reduce air pollution from all sources. **2.24** Take a systematic approach to reduce health inequalities. **2.3** Improve preventative care. **2.37** Commission, partner with and champion local charities, social enterprises and community interest companies. **4.38** Make the NHS a consistently great place to work – promoting flexibility, wellbeing and career development. **4.42** Place respect, equality and diversity at the heart of workforce plans. **16** Play a wider role in influencing the shape of local communities. **17** Lead by example in sustainable development and in reducing use of natural resources and the carbon footprint of health and social care **18** Create social value in local communities as an anchor institution.
NHS Standard Contract 21/22 SC18	**18.1** Take all reasonable steps to minimise adverse impact on the environment. **18.2** Maintain and deliver a Green Plan, approved by the Governing Body, in accordance with Green Plan Guidance.
NHS Planning Guidance 21/22 PG	**C1** Where outpatient attendances are clinically necessary, at least 25% should be delivered remotely by telephone or video consultation
NHS Estates 'Net Zero' Carbon Delivery Plan NZCDP	**1.** Making every kWh count: Investing in no-regrets energy saving measures **2.** Preparing buildings for electricity-led heating: Upgrading building fabric **3.** Switching to non-fossil fuel heating: Investing in innovative new energy sources **4.** Increasing on-site renewables: Investing in on-site generation
NHS Greener NHS / Net Zero Plan	Net zero by **2040** for the NHS Carbon Footprint, with 80% reduction by 2028 to 2032. Net zero by **2045** for the NHS Carbon Footprint '*Plus*', with an ambition for an 80% reduction by 2036 to 2039.

Figure 1 NHS Environmental Drivers

Legislative Drivers	UK Guidance
Civil Contingencies Act 2004	National Policy and Planning Framework 2012
Climate Change Act 2008 (as amended)	Department of Environment, Food and Rural Affairs (DEFRA) The Economics of Climate Resilience 2013
Public Services (Social Values) Act 2012	Department for Environment, Food and Rural Affairs (DEFRA) Government Buying Standards for Sustainable Procurement 2016
Mandatory; those mandated within the NHS	The Stern Review 2006; the Economics of Climate Change
Standard Form Contract requirements	Health Protection Agency (HPA) Health Effects of Climate Change 2012
HM Treasury's Sustainability Reporting Framework	The National Adaptation Programme 2013; Making the country resilient to the changing climate
Public Health Outcomes Framework	Department of Environment, Food and Rural Affairs (DEFRA) 25 Year Plan
International	**Health Specific Requirements**
Intergovernmental Panel on Climate Change (IPCC) AR5 2013	Delivering a Net Zero National Health Service 2020 and Greener NHS guidance
UN Sustainable Development Goals (SDGs) 2016	Five Year Forward View 2014
World Health Organisation (WHO) toward environmentally sustainable health systems 2016	Sustainable Development Strategy for the Health and Social Care System 2014-2020
World Health Organisation (WHO) Health 2020	Adaptation Report for the Healthcare System 2015
The Global Climate and Health Alliance. Mitigation and Co-benefits of Climate Change	The Carter Review 2016
	National Institute for Clinical Excellence (NICE) Physical Activity; walking and cycling 2012
	Health Technical Memoranda (HTM) and Health Building Notes (HBN)
	Sustainable Transformation Partnerships (STP) Plans

Figure 2 Legislative Drivers with UK Guidance

The UN Sustainable Development Goals

The Trust is working meaningfully towards the United Nations (UN) Sustainable Development Goals (SDGs) through the Green Plan, which have been aligned to relevant SDG targets.

The SDGs underpin a global action framework to 2030, adopted by every UN member country to address the biggest challenges facing humanity.

Each goal has targets and indicators to help nations and organisations prioritise and manage responses to key social, economic and environmental issues.

"The NHS belongs to all of us" *

The NHS and its people contribute to multiple SDGs through the delivery of its core functions, for example, target 3.8, to achieve universal health coverage.

Established on 5th July 1948, the UK's National Health Service is the world's first modern fully universal healthcare system, free at the point of use, and celebrating its 75th year in 2023.

* Constitution of NHS England

Linking the Green Plan to NHS Net Zero

Contributing to around 4% of the country's carbon emissions, and over 7% of the economy, the NHS has an essential role to play in meeting the net zero targets set under the Climate Change Act.

Two clear and feasible net zero targets for NHS England are outlined in the 'Delivering a 'Net Zero' National Health Service' report (aka NHS Net Zero Report):

- **The NHS Carbon Footprint** for the emissions under direct *control*, net zero by **2040**
- **The NHS Carbon Footprint 'Plus'** for the emissions under *influence*, net zero by **2045**.

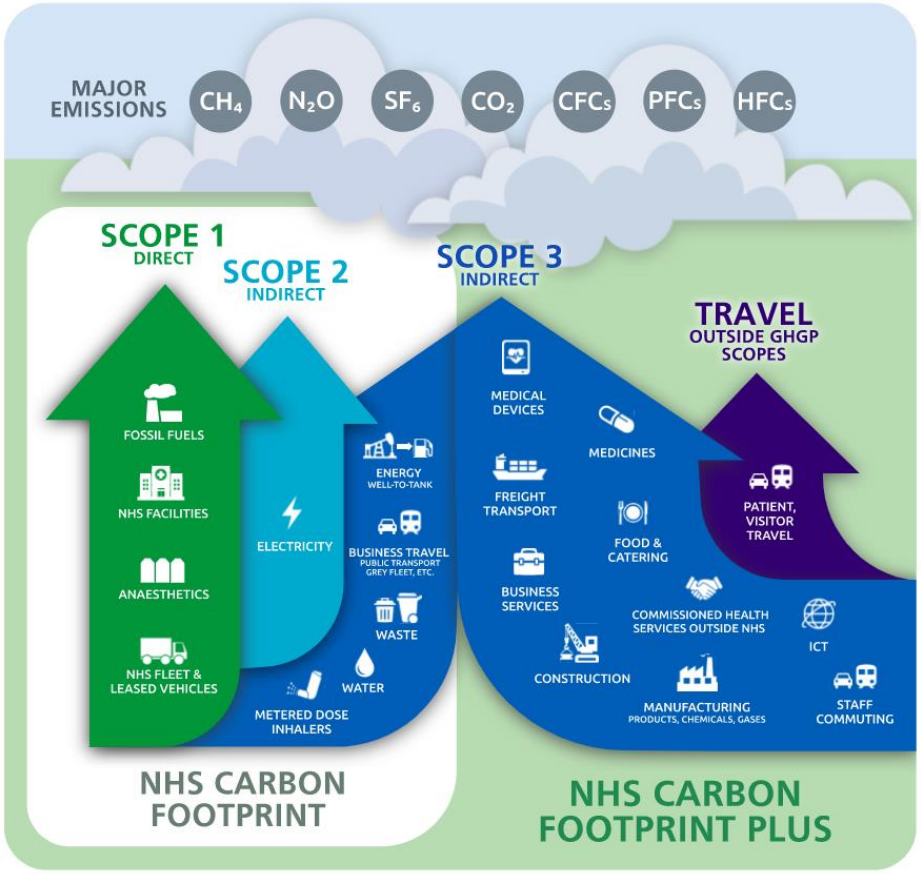
All NHS trusts are to align their Green Plans with NHS England's net zero ambitions. Those emissions have been calculated from all the sources listed in the NHS Net Zero Report should be reduced by approximately 4% year-on-year (akin to Science Based Targets) until each of the relevant target dates.

Greenhouse Gas Emissions

Greenhouse gas emissions are conventionally classified into one of three 'scopes', dependent on what the emission source is and the level of control an organisation has over the emission source. They are reported in 'tonnes of carbon dioxide equivalent' (t CO_2e).

The emission sources and their 'scopes' are shown in the infographic (Figure 3).

Figure 3 Greenhouse gas emission sources, and their 'scopes'



Data and methodology

The result of a GHG emission calculation varies in accuracy depending on the data set provided. The more accurate the data supplied, the more accurate the result, which will subsequently allow for better targeting of areas where improvements can be made.

BSMHFT's GHG emissions footprint has been calculated according to the GHG Protocol for Corporate Reporting and aligned with ISO 14064:1.

The Trust's carbon footprint has been calculated from 2018/19 to 2021/22 in terms of building energy and delivery of care, travel, and the supply chain, as per the categorisations in the NHS Net Zero report.

The Trust has used the following primary data:

- resource consumption (electricity, gas, water) data from utility bills
- waste arisings from data sets from waste contractors
- fleet vehicle fuel use from fuel reports/receipts
- business miles travelled (by car) from the expenses system
- published procurement spend

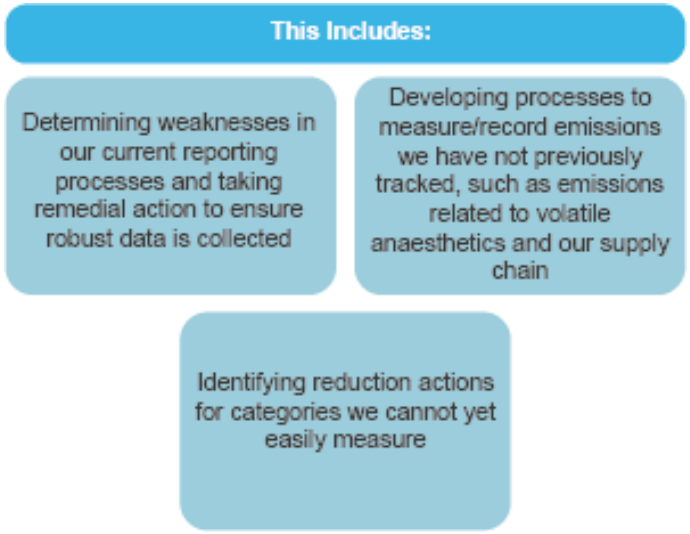
The Trust has used the NHS Health Outcomes of Travel Tool (HOTT) to estimate emissions from staff commuting, patient and visitor travel and published procurement expenditure to derive spend-based emission values for categories within our supply chain.

The Trust is using 2019/20 as the baseline year to set targets against as this is the last full financial year before the COVID-19 pandemic, allowing us to capture the impacts of the resulting negated travel and remote appointments in this Plan.

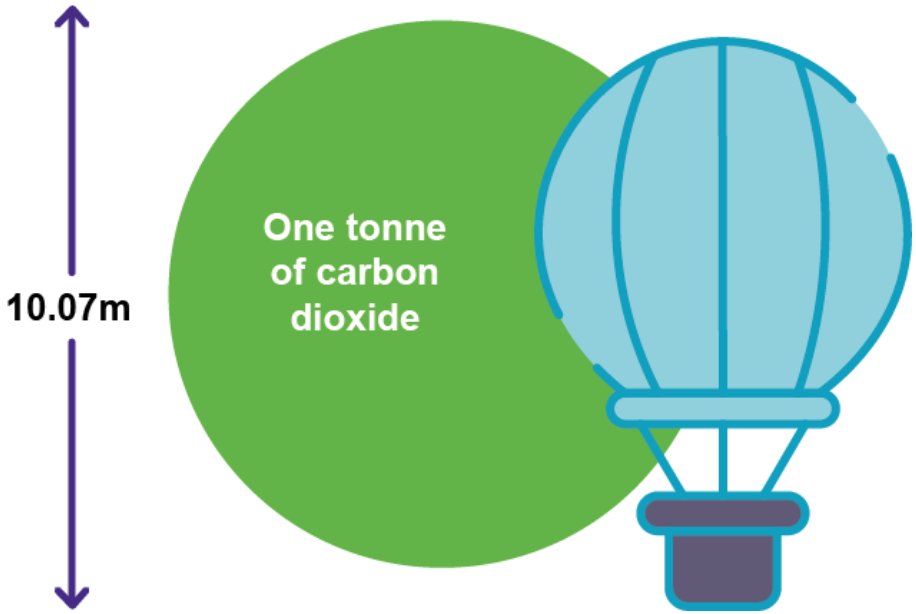
BSMHFT's Net Zero Ambitions

BSMHFT fully commits to reducing greenhouse gas emissions to Net Zero to prevent the worst impacts of climate change and meet NHS Net Zero commitments. This plan outlines high-level emissions reductions and enabling actions for each area of focus. This means BSMHFT needs to act now to reduce emissions from a variety of direct and indirect sources; from the estate to the delivery of care and beyond, each year from now until Net Zero is achieved.

The Trust is using this Green Plan to improve Net Zero-related data collation, carbon footprint and reporting capacity over time.



An emissions-reduction trajectory for each emission source has been given in each Area of Focus (if applicable) from 2021/22 until 2025/26. A series of actions in each Area of Focus has been listed to achieve these emission reductions. There will be residual emissions at both the 2040 and 2045 target dates, which will need to be 'offset' or sequestered (which is not in the scope of this Plan).



What does 1 tonne of carbon dioxide look like?

One tCO_2e can be visualised as a volume of gas the size of a hot air balloon – a sphere about 10 metres in diameter.

The average 3-bedroom semi-detached home in the Midlands emits around 1 tCO_2e per year from electricity consumption and almost 2 tCO_2e from the use of natural gas for heating and cooking.

The Current Position / Baseline

The Carbon Footprint for BSMHFT will be established in full and set using the 2019/20 financial year (this representing the last 'normal' year prior to the pandemic. This will be developed following data and metrics to be issued by NHSEI. An in-depth review of full scope 3 tCO_2e is also to be undertaken.

To meet the NHS Net Zero commitments, calculations, and metrics against the NHSEI requirements will be developed up to 2040/45

Areas of Focus Contents

The following ‘Areas of Focus’ give an overview of the Trust’s current performance/status, each including an Action Plan The Action Plans are lists of activities that the Trust will take to work towards and / or achieve our Green Plan goals by 2025/26. Individual actions are to be monitored and evaluated routinely, and progress status changed accordingly.

Indicative costs and emission reductions are given for each action. These are very high-level assumptions. A key is given below.

This Green Plan applies to all staff who work for or work within Birmingham and Solihull Mental Health Foundation Trust and its wholly owned subsidiary company, SSL. In addition, the principles of, and many actions within this plan should be shared and owned as necessary with approved contractors and when tendering for any works of any kind.

The Actions may have ‘target dates’ but the ethos, culture and behaviours that this Plan expects are for now and with immediate effect. In essence this Strategy and Action plan supports an approach of continuous improvement with ‘no’ end date; being sustainable, reducing carbon and protecting the environment can never be ‘ticked’ as completed.

Key:

Indicative Cost to achieve:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative Emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

Not applicable

Workforce and System Leadership

The Trust will build the Green Plan into its strategic planning and governance, including clinical and operational policies and procedures to ensure sustainable development is a part of the Trust's daily work and how success is measured.

The Trust's board-level Net Zero lead will oversee the resourcing and delivery of this Green Plan. Action plans identified by this Green Plan will be reviewed in discussion with Finance and Capital Planning teams to identify suitable budgets. The Trust will seek to identify internal and third-party funding to support the roll-out of Green Plan actions.

This Green Plan is approved by the Trust Board and will be reviewed (and revised if necessary). These reviews and progress against the actions in the Green Plan will be submitted to the Coordinating Commissioner.

Partners and Stakeholders

Stakeholders and partners engagement will be paramount in ensuring change towards a more sustainable future. The need to be sustainable and reduce greenhouse gas emissions is a shared responsibility between our Trust and all whom the Trust (and SSL) work with. We have existing strategic alliances, formal partnerships and provider collaboratives to improve services, pathways and service user outcomes, shared expertise and spread of best practice. For example:

- Birmingham Care Alliance with Birmingham Community Healthcare NHS Foundation Trust
- Joint working with Birmingham Women's and Children's NHS Foundation Trust
- MERIT partnership with the mental health Trusts across the West Midlands
- Reach Out provider collaborative, and lead provider for adult secure care
- A range of partnerships with the community and voluntary sector

In addition to our existing partnerships, the Trust and SSL will need to work with the following:

- Staff and Service users
- Commissioners (CCG)
- Sustainability Transformation Partnership (to include Local Authorities and other NHS Trusts, Strategic Healthcare related organisations
- The Third Sector
- PFI partners
- Contractors / Suppliers / Supply chain
- Local people
- Regulators

Sustainability Groups

The Trust operates an open group with non-executive, executive, union and SSL membership.

NHS LTP 2.24, 17

NHS SC 13.9, 13.10, 18.2, 18

NHS NZ 4.2.3

13 CLIMATE ACTION

Target 13.2 Integrate climate change measures into policy and planning

Target 13.3 Build knowledge and capacity to meet climate change

No	BSMHFT Green Plan Actions	Target Year	Pro-gress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	To develop a Sustainable Development Strategy and Action Plan that is Board Approved (Green Plan / Net Zero Plan)	21/22		£	✕	SSL/Trust	**SC** 18.2
02	To have an identified and recorded Board level Sponsor / Lead	21/22		£	✕	SSL/Trust	**SC** 18.2
03	Review and approve the plan at the Board level, monitoring delivery at Board meetings and relevant committees.	Ongoing		£	✕	Trust Board	**SC** 18.2
04	Nominate and empower a Climate Change Adaptation Lead and keep the Co-ordinating Commissioner informed at all times of the persons holding these positions.	22/23		£	✕	Trust Board	**LTP** 2.24,17 **SC** 18.2.2
05	Identify budgets for the delivery of each 'area of focus' and the Green Plan as a whole.	22/23		£		Trust Board	**LTP** 2.24,17
06	Streamline data collection processes and produce a comprehensive monthly data report with relevant Green Plan metrics	22/23		£		Estates and Facilities	**NZ** 3.1.1, 3.1.2
07	Produce an annual granular carbon account in line with HM Treasury's 'Public sector annual reports: sustainability reporting guidance', with the intention of widening its scope and data quality, when possible, along with an annual review of the progress against the Green Plan actions / emission reduction targets	22/23		£		Estates and Facilities	**SC** 18.3
08	Ensure staff are resourced to undertake Green Plan duties and nominate a lead person or department for each Green Plan area of focus to develop and coordinate action through the existing Sustainability Steering Group.	23/24		£		Trust Board	**LTP** 2.24,17
09	Ensure the Green Plan delivery is reflected in the corporate risk register.	23/24		£		Trust Board	**LTP** 2.24,17
10	Review procurement plan at board level to achieve a net zero supply chain. Fulfil the Trust's role as an anchor institution to achieve social value and wider benefits for communities, particularly for the Trust's care groups.	23/24		£		Trust Board	**LTP** 2.24,17
11	Identify and action ways to engage patients and community in Green Plan delivery, including links between health inequality and climate action.	23/24		£		HR	**LTP** 2.24,17
12	Identify internal and third-party funding to enable key Green Plan actions.	22/23		£		Estates and Facilities	**LTP** 2.24,17
13	Work in partnership with neighbouring NHS trusts and public authorities to enhance the delivery of the Green Plan and share best practice.	Ongoing		£		Trust Board	**LTP** 2.24,17
14	Ensure quarterly Greener NHS Data Collection uploads are made.	Ongoing		£	✕	Estates and Facilities	**NZ** 3.1.1, 3.1.2

Figure 4 Green Plan actions for system leadership

Workforce

All colleagues are needed for the Trust's Green Plan to be successful.

The NHS is the biggest employer in Europe and the world's largest employer of highly skilled professionals and the NHS Long Term Plan aims to ensure it is a rewarding and supportive place to work.

A 2018 national survey of NHS staff showed that 98% of those surveyed thought it was important that the health and care system works in a way that supports the environment, and BSMHFT will enable colleagues to lead the way to achieve a greener NHS.

However, the Trust's Green Plan needs to be embedded within its culture, with the recognition that people are at the core of the NHS. The Trust already has five sustainability champions, who act as environmentally conscious volunteers to embed the Green Agenda across our organisation. The Trust will empower staff to deliver this Green Plan at all levels of the organisation. To do this, the team will further utilise the Greener NHS "One Year On" Communications Toolkit, currently used for general messaging and press releases.

Key to workforce engagement is communications, and our Trust ensures that projects such as free public transport tasters and salary sacrifice schemes are posted on intranet and promoted through local fliers.

To achieve similar levels of engagement with the Green Plan going forward, there will be monthly intranet posts to expose our staff to the targets and achievements of the Green Plan. In addition, we will produce Green Plan posters to promote the Plan across our sites. These communications projects are being developed to ensure greater embedding of the green agenda across our activities.

NHS LTP 4.1, 4.3, 4.39, 4.42, 4.43, 4.7

NHS SC 13.1 through 13.10

NHS NZ 4.2, 4.2.1, 4.2.2

8 DECENT WORK AND ECONOMIC GROWTH

Target 8.5 Full employment and decent work with equal pay

13 CLIMATE ACTION

Target 13.3 Build knowledge and capacity to meet climate change

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Target 16.B Promote and enforce non-discriminatory laws and policies

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	Establish a Sustainability Group and incorporate the Green Plan into its agenda.	22/23		£	✕	Estates and Facilities	**LTP** 4.1, 4.3, 4.39, 4.42 **SC** 13.1 to 13.10
02	Design and implement a Green Plan promotional campaign to encourage ongoing staff collaboration.	22/23		£	✕	People & OD	**N/A**
02	Building on current practice, review policies and processes against NHS aims for ensuring rewarding, flexible and supportive work, positive action on promoting equalities, including through the Workforce Race Equality Standard and new Workforce Disability Equality Standard, and regular reporting against the NHS Model Employer Strategy.	Ongoing		£	✕	People & OD	**LTP** 4.1, 4.3, 4.39, 4.42 **SC** 13.1 to 13.10
03	Further development of flexible working / homeworking. procedures / policies and resources that support, encourage and / or compensate staff for homeworking.	Ongoing		£	☁	HR/ICT	N/A
04	Incorporate the Green Plan into the Essential Mandatory Training and Induction policies.	22/23		£	☁	Education Services	**NZ** 4.2.1
05	Create Green Plan intranet pages for staff access and external webpages for other stakeholders; upload Green Plan content and progress updates accordingly.	22/23		£	✕	Sustainability Lead	**NZ** 4.2.1

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
06	Use the Green NHS 'ONE YEAR ON' Communications Toolkit and/or the 'Healthier Planet, Healthier People' Toolkit to create and share communications about the Green Plan.	Ongoing		£		Communications & Engagement	**NZ** 4.2.1
07	Encourage staff to actively participate in the Greener NHS community and other forums such as the Greener AHP Hub, Centre for Sustainable Healthcare and related workspaces on the FutureNHS platform.	22/23		£		Communications & Engagement	**NZ** 4.2.1
08	Consult, explore and action how clinical and non-clinical staff can best participate in the Green Plan delivery process, ensuring this is incorporated into workplans, work-time allocations, performance reviews, and collaborating with other trusts where appropriate.	22/23		£		Sustainability Lead	**NZ** 4.2, 4.2.1, 4.2.2, 4.3.3
09	Provide additional training related to this Green Plan to build capability in all staff, including on the link between climate change and health and practical actions that staff can take to help achieve net zero.	23/24		£		Training and Development	**NZ** 4.2.1
10	Work with suppliers to ensure that onsite workers are subject to the Real Living Wage, fair working practices and protections against discrimination.	23/24		£		Procurement & People & OD	**LTP** 4.1, 4.3, 4.39, 4.42

Figure 5 Green Plan actions for workforce

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

Not applicable

Sustainable Models of Care

The NHS Long Term Plan updates the NHS service model, with a focus on preventative care in communities and tackling health inequalities, now and in the future. This has been linked to emissions reductions and greener activities.

BSMHFT delivers care from 46 sites across both regions, including inpatient, community and specialist mental health services. These services include rehabilitation, home treatment, community mental health services, assertive outreach, early intervention, inpatient services, day services and mental health wellbeing services.

The National Patient Safety Improvement Programmes and the Investment Impact Fund indicators (IIF) provide underpinning principles for sustainable models of care, such as preventative care interventions and reducing health inequalities. Staff training and empowerment, as detailed in the previous sections, are critical to enhancing sustainable models of care.

Adhering to the Getting it Right First Time programme (GIRFT) helps to avoid additional hospital bed days and patient and visitor travel to clinics, and their associated environmental impacts. Strong interagency partnership working enhances GIRFT, providing a better care package. A GIRFT report quarterly is produced quarterly and the Trust is in the process of strengthening the reporting process.

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	Build on current efforts (GIRFT, National Safety Improvement Programme and CMPP) to reduce health inequalities and improve early intervention, linking this work to potential emissions reductions.	Ongoing		£		Trust Board and relevant clinical leads	**LTP** 2.26 **SC**13.9.118.4.2.1 **NZ** 4.1.3
02	Use the Embedding Public Health into Clinical Services Programme's toolkit and Sustainability in Quality Improvement (SusQI) Framework to ensure the best possible health outcomes with minimum financial and environmental costs, while adding positive social value at every opportunity.	Ongoing		£		Trust Board and relevant clinical leads	**LTP** 2.26 **SC**13.9.118.4.2.1 **NZ** 4.1.3
03	Continue to collaborate with other trusts and public authorities on the population's health.	Ongoing		£		Trust Board	**LTP** 1.53 **SC** 18.6 **NZ** 4.1.3
04	Appoint a Health Inequalities Lead to coordinate delivery of an updated Health Inequalities Action Plan.	22/23		£	✕	Trust Board	**LTP** 2.26 **SC** 13.9.2, 13.10 **NZ** 4.1.3
05	Follow Greener NHS guidance or support the development of GHG emissions reduction metrics linked with sustainable care actions, including establishing links between better health outcomes and reduction in emissions from avoided care and travel.	23/24		£	✕	Estates and Facilities	**SC** 18.4.2.1 **NZ** 4.1.1, 4.1.2
06	Work to engage suppliers related to sustainable care in relevant emissions reduction and health equalities activities.	23/24		£	✕	Procurement & service providers	**NZ** 4.1.3
07	Explore new ways of delivering care at or closer to home, meaning fewer patient journeys to hospitals.	Ongoing		£		Clinical divisions	**NZ** 4.1.1

Figure 6 Green Plan actions for Sustainable care models

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

✕ Not applicable

Digital Transformation

The NHS Long Term Plan commits all NHS bodies to focus on digital transformation by establishing a 'digital front door', enabling digital first care. The NHS App is one example of this, providing patients with a simple and secure way to access NHS services on their smartphone.

The NHS Planning Guidance requires that at least 25% of all clinically necessary outpatient appointments should be delivered remotely by telephone or video consultation. Streamlining and digitising administrative functions also reduces paper waste and expedites processes.

As a Global Digital Exemplar (GDE) Trust and as the highest scoring mental health trust on the Digital Maturity scale, BSMHFT strives to use digital care as a tool to promote inclusion and increase access to quality care across Birmingham and Solihull. We are committed to ensuring that digital services are tailored to meet the needs of the different specific care groups. The Government's Greening ICT and Digital Services Strategy 2020-2025 is also taken into consideration when looking at the improvement of the Trust's digital care services.

The 'What Good Looks Like' framework', designed to guide Trusts towards the successful integration of digital care systems, neatly summarises the Trust's position:

'The pandemic enabled us to achieve a level of digital transformation that might have otherwise taken several years. As we move into the recovery period, it is critical that we build on the progress we've made and ensure that all health and care providers have a strong foundation in digital practice'.

Digital Services

Since the beginning of the pandemic, the number of face-to-face, telephone and video consultations has increased significantly. However, there will always be a need for face-to-face appointments and consultations for some patient groups.

The COVID-19 pandemic has led to a blended working approach, especially for office-based staff – for example, a mixture of in office and home-based working. Many staff now work in an agile way, and the Trust is exploring how to embed this as a new sustainable way of working.

Microsoft Teams is used across the Trust. It has massively impacted the way staff groups communicate, with a knock-on effect on the use of space and resource efficiency across our estate.

To facilitate this transition, there has been a rollout of devices to allow for agile working which increases efficiency, reduces travel and the need for dedicated desk space.

The Trust has been driven towards the digitalisation of patient records in recent years, albeit with some inertia from some staff members. It will be important to communicate the importance of digitalisation to all our workforce to minimise this. Appointment and result letters have been digitised where possible, in addition to a complete digitalisation of expense claims. SMS messages are used for appointment reminders and 90-100% of community based and peripatetic workers such as district nurses have access to mobile digital services.

Going forwards, the Trust endeavours to build on the opportunities afforded from our rapid rollout of digital solutions and technology that occurred during the COVID-19 pandemic. This includes taking part in new digital research in order to adopt digital forms of service delivery which are underpinned by research and service evaluation. We also aim to develop share care records and systems and a technology roadmap to determine how we can implement opportunities identified in our Trust Strategy.

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	To increase capacity and ease of home working from a connectivity / ICT perspective	Ongoing		£		ICT	**PG** C1
02	Increase capacity and effectiveness of ICT and communications devices to allow for TEAMs / ZOOM and equivalent meetings, reducing reliance on buildings / space and travel	Ongoing		£		ICT	**PG** C1
03	Work with neighbouring Trusts and Birmingham and Solihull ICS to develop a shared care record.	22/23		£	✕	ICT	**PG C1**
04	Utilise our Global Digital Exemplar status to engage with digital research.	Ongoing		£	✕	ICT	**PG C1**
05	Ensure our staff are digitally literate by providing training sessions.	Ongoing		£	✕	ICT	**PG C1**
06	Develop a technology roadmap to determine how we can implement the opportunities identified in this plan and previous strategies.	22/23		£	✕	ICT & Sustainability manager	**PG C1**

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
07	Build on current practice and current online patient guidance, participate in delivery of the Long-Term Plan commitments for digital first primary care and an NHS digital front door, linking this to potential emissions reductions.	Ongoing		£	⊗	ICT	**LTP** 1.43, 1.44, 5 **NZ** 4.1.4
08	Follow NHS guidance on information collection, including any subsequent process for GHG emissions reduction metrics linked with digital-first care actions, such as the CSH's Carbon Calculator for Avoided Patient Travel	Ongoing		£	⊗	Sustainability manager & Infrastructure services.	**SC** 28
09	Offer more digital and remote appointments to staff and patients.	22/23		£		Care Groups	**PG** C1
10	Use the What Good Looks Like Framework, the Greening Government: ICT and Digital Services Strategy 2020-25 and The Technology Code of Practice as guides to ensure the Trust has robust ICT systems in place to deliver on digital transformation.	23/24		£		ICT	**NZ** 4.1.4
11	Build on current practice of engaging staff and care groups in digital care channels, meaning fewer patient journeys.	Ongoing		£		ICT	**NZ** 4.1.4 **PG** C1
12	Transfer paper-based systems such as prescribing, bed state, observations, ward state, referrals, and expense claims forms to a digital alternative.	23/24		£		ICT	**LTP** 1.43, 1.44, 5
13	Planned migration of data systems to cloud-based systems. Adoption of staff and patient portals. Continued cyclical replacement programme of IT hardware, including the provision of smart phones to all front-line staff.	23/24		£		ICT& Business & Value	**LTP** 1.43, 1.44, 5

Figure 7 Green Plan actions for digital transformation

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

⊗ Not applicable

Travel and Transport

The Trust is committed to developing a Green Travel Plan, outlining the aims and objectives related to reducing congestion, single occupancy travel, and CO_2 emissions. It will explore how to promote active travel to staff and visitors. In addition, the Trust will produce site-specific plans to focus on the individual challenges of each hospital.

Emissions associated with the Trust's business travel could not be determined due to the current unavailability of business expense data. This will be amended in future carbon footprint reporting.

However, using the NHS' Health Outcomes Travel Tool (HOTT), most transport-related emissions (3,671 tCO_2e) can be linked to staff commuting and patient/visitor travel.

BSMHFT Fleet Vehicles

The Trust operates a fleet of 72 vehicles, which are used for a variety of purposes. These include non-emergency patient transport, PPE distribution, estates team usage, portering, facilities and general transport services. The Trust leases all of its official vehicles, meaning a modern fleet and circa 35% are hybrid or electric.

In 2019/20, these vehicles travelled in the region of 570,000 miles.

The new NHS Non-Emergency Patient Transport Services (NEPTS) target is to have:

- From 2023, **50%** of all fleet vehicles to be of the latest emissions standards, Ultra-low Emission Vehicles (ULEVs, such as plug-in electric hybrid), or Zero Emission Vehicles (ZEVs, such as electric cars)
- From 2025, **75%** of all fleet vehicles to be of the latest emissions standards, ULEVs or ZEVs
- From 2030, **100%** of all fleet vehicles to be ULEVs or ZEVs, including a minimum of 20% ZEVs

At present, ULEV and ZEV large vans are limited, though more will be coming onto the market.

ULEV and ZEV small vans and cars are becoming commonplace, with many options available.

BSMHFT needs to undertake a fleet review to see how the vans and large vans are being used, and whether suitable ULEVs and ZEVs are available. Additionally, the Trust must review the choice of company cars on offer and change the specifications to reflect the targets within the NEPTS.

If the Trust changed all of the fleet vehicles to ZEVs, based on 2019/20 data and using 100% renewable electricity, there would be a significant drop in emissions (emissions associated with electric vehicles are due to transmission and distribution losses in the national grid). This would result in total emissions

Aside from the electrification of transport, the Trust needs to reduce emissions from the fleet further by 2025/26, data and targets to be established. equating to just over xx tCO_2e per year.

Other Lease Vehicles

Staff have the option to lease personal vehicles through the NHS Fleet Solutions Salary Sacrifice Scheme.

Emissions from these vehicles (used for staff personal use) are outside of the scope of this report (although they do impact on emissions arising from commuting somewhat). However, as a Trust, the availability of vehicles on offer can be limited based on their engine size and emissions. Furthermore, the Trust can incentivise staff to choose Ultra Low Emission Vehicles (plugin hybrid cars) or Zero Emission Vehicles (electric cars).

Grey Fleet

The Trust has a ‘grey fleet’, which refers to employees’ own vehicles and/or hire cars used for business purposes. As a Trust that provides care in the community, emissions associated with the grey fleet are sizeable.

BSMHFT reimburses staff and bank staff for the fuel used in line with their duties through an expenses system. However, the grey fleet emissions could not be determined due to the unavailability of expenses data. This will be amended in future carbon footprint reporting.

It is worth noting that in 2020/21, with the changed working styles affected by the pandemic, grey fleet mileage and therefore greenhouse gas emissions are projected to have fallen. Although mileage from business meetings and travel into offices fell, travel for care in the community continued. The changes in working practice associated with travel negation should continue to further greenhouse gas emission reduction.

As the electrification of transport continues, the emissions will reduce accordingly. This also brings forth the issue of providing additional electric vehicle charge points in the future.

Electric Vehicle Charging Infrastructure

At the time of writing, we are in the process of installing EV charging points at 10 of our sites, for use by Trust fleet vehicles only. We will look to invest in publicly accessible charging points going forward to further encourage EV uptake.

Business Travel (public transport)

The Trust also reimburses staff for business travel through the expenses system. However, these emissions cannot be determined at this time, as data is unavailable. This will be amended in future carbon footprint reporting.

Commuting, Visitor/Patient Travel

The Trust operates a salary sacrifice cycle to work scheme with cycle parking facilities available at most of our sites.

Increasing the number of cycle parking spaces, improving shower/changing facilities, and offering other incentives for active travel will be explored.

Public transport is widely available across the region, however our Trust has over 50 sites across Birmingham and Solihull and there are certain areas with less availability. Bus travel is promoted to staff through a scheme offering a week of free travel for all new starters in addition to a discounted scheme for all NHS staff through National Express; the portal through our intranet offers season tickets. Train travel is offered through salary sacrifice.

The previous travel survey was undertaken in 2014, and we endeavour to update this in our next Travel Plan. In lieu of any recent travel plan survey data, which will be collected annually going forward, the NHS HOTT Tool has been used to estimate the emissions associated with staff commuting and patient and visitor travel. The HOTT Tool uses national and regional datasets to generate figures for transport mode, distances, and emissions from a 2018 baseline and projections into the near future (shown in Figure 13).

However, these figures are indicative and need to be bolstered and verified by local travel plan survey data. Hence, the impacts of COVID-19, with less need for commuting, do not fully feature in the results (the sequentially lower emissions are attributed to improvements in vehicle efficiencies and electrification of transport).

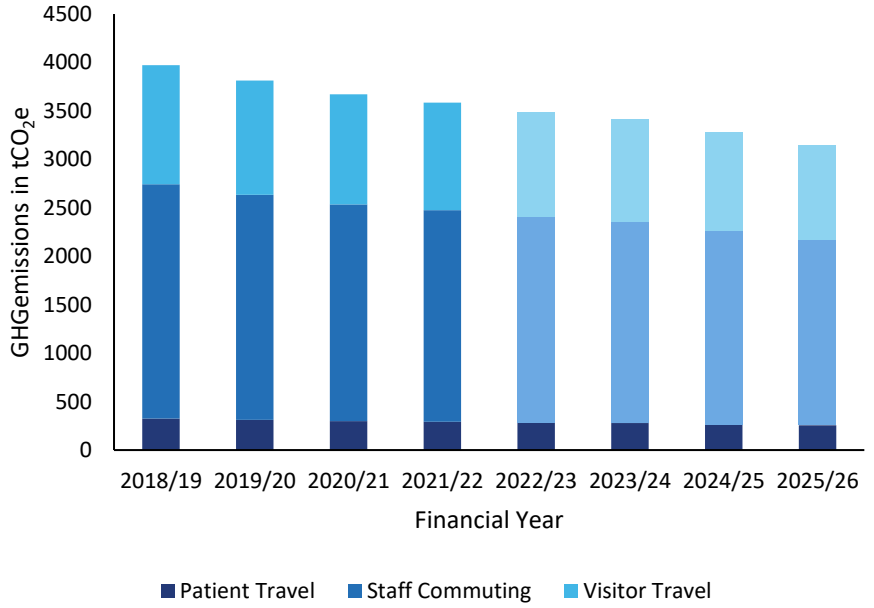


Figure 8 Stacked bar chart to show total emissions from patient, visitor and staff travel and emissions reduction trajectory to 2025/26

Air Quality

Air quality, climate change and health outcomes are highly interconnected, and the NHS Net Zero plan calculates that reaching UK ambitions on emissions reductions in line with Paris Agreement targets could save 38,000 lives with improved air quality.

According to the World Health Organisation (WHO), poor air quality leads to over 7 million deaths globally and that 9 out of 10 people worldwide breathe polluted air.

The topic of air quality is of particular significance in Birmingham as there is a Clean Air Zone (CAZ) that targets older, higher polluting vehicles and drivers. The zone imposes a daily levy to enter into or pass through a dedicated zone in the city centre.

Travel is a key contributor to air pollution, and with as many as 1 in 20 road journeys in the UK attributable to the NHS, the Trust's activity has enormous potential impact on local communities' air quality. Additionally, the gas-fired boilers that the Trust uses contribute to air pollution, and the decarbonisation of heating will address these pollutants in the future.

The Trust commits to tackling this issue through investment and engagement with staff, patients and partner local authorities. The Trust will give special consideration to the air quality surrounding the estate and opportunities to improve its impacts on care groups.

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	Scope the need for and make decisions on whether Trust sites are to be developed to support public electric charging points and to develop appropriate Business Cases, Policy and Procedure.	21/22		£	✕	SSL	N/A
02	Use location as part of patient caseload planning to ensure effective journeys and routes, reducing time spent travelling.	21/22		£	✕	Finance	N/A
03	Review and enhance cycling facilities across the estate.	23/24		£		Estates and Facilities	N/A
04	Develop a car-sharing scheme for staff.	23/24		£	✕	Estates and Facilities	**NZ** 3.2, 3.2.2
05	Embed an updated sustainable travel plan, with new modal shift targets to be supported by an active travel expenses policy and facilities review.	23/24		£		Estates and Facilities	**LTP** 2.21, 3.82, 17 **SC** 18.4.1.3 **NZ** 3.2, 3.2.2
06	Conduct annual Travel Plan surveys to quantify staff commuting and visitor travel and verify HOTT Tool outputs.	Annual, ongoing		£	✕	Estates and Facilities	**NZ** 3.2, 3.2.2

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
07	Review existing staff lease scheme and incorporate additional incentives for the uptake of ULEV and ZEVs.	23/24		£		Finance	**NZ** 3.2, 3.2.2
08	Undertake a Green Fleet review of the fleet vehicles to ascertain usage and distance travelled, with a view to integrating ULEVs and ZEVs	23/24		£		Finance	**NZ** 3.2, 3.2.2
09	Ensure that any new vehicle purchased or leased are ultra-low emission (ULEV) or zero emission (ZEV) from 2023, in line with the latest NHS non-emergency transport guidance.	23/24		£		Estates and Facilities	**SC**.18.4.1.1, 18.4.1.4 **NZ** 3.2.1
10	Enhance the staff mileage reimbursement system to collate vehicle type/engine size and fuel type data to allow more accurate emissions foot printing, monitoring and reduction targets.	23/24		£	✕	Finance	**NZ** 3.2, 3.2.2
11	Enhance the business travel expense system to capture the to- and from-destinations for rail, air, bus and taxi journeys and collate data from expenses.	23/24		£	✕	Finance	**NZ** 3.2, 3.2.2
12	Improve stores provision and work with suppliers to consolidate goods orders through better planning wherever possible, reducing transport emissions.	23/24		£		Procurement	**NZ** 3.2, 3.2.2
13	Work with staff currently home-working under pandemic conditions to explore voluntary blended working.	23/24		£		HR	**NZ** 3.2, 3.2.2

Figure 9 Green plan actions for Travel, Logistics and Air Quality

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

✕ Not applicable

Estates and Facilities

As an NHS Trust, the carbon footprint of the built environment is significant. Overall, the health and care system in England is responsible for an estimated 4-5% of the country's carbon emissions.

As the Trust provides critical services 24 hours a day, energy and resource consumptions are substantial. Therefore, there is a need to optimise energy use in buildings and move away from using fossil fuels to meet NHS Net Zero goals.

The estate comprises several facilities housed in other Trusts' buildings. This presents challenges to retrofitting resource efficiency measures and heating improvements, and BSMHFT will work with other Trusts and the aims of their Green Plans to improve efficiencies at these sites.

The Trust will follow the four-step approach within the NHS' 'Estates 'Net Zero' Carbon Delivery Plan' to address the estate:

1. Making every kWh count: Investing in no-regrets energy saving measures

2. Preparing buildings for electricity-led heating: Upgrading building fabric

3. Switching to non-fossil fuel heating: Investing in innovative new energy sources

4. Increasing on-site renewables: Investing in on-site generation

Estates & Facilities: Energy

- **7,887 tCO_2e** emitted from buildings across the estate in **2019/20.**
- The Trust has procured 100% renewable electricity since April 2020.
- BSMHFT needs to continue reduce energy consumption – investing in renewable energy for example**.**

Energy and Emissions

In 2021/22, there were 41 active sites where BSMHFT was directly responsible for procuring the energy supply contracts. Buildings under the Trust's ownership can be targeted for energy efficiency improvements.

Figure 15 shows the total consumption and emissions liberated from electricity and gas use from 2019/20 to 2021/22. The Trust needs to reduce emissions by 3,319 tCO_2e by 2025/26 from the 2019/20 baseline (this includes the reduction in emissions from procuring renewable electricity).

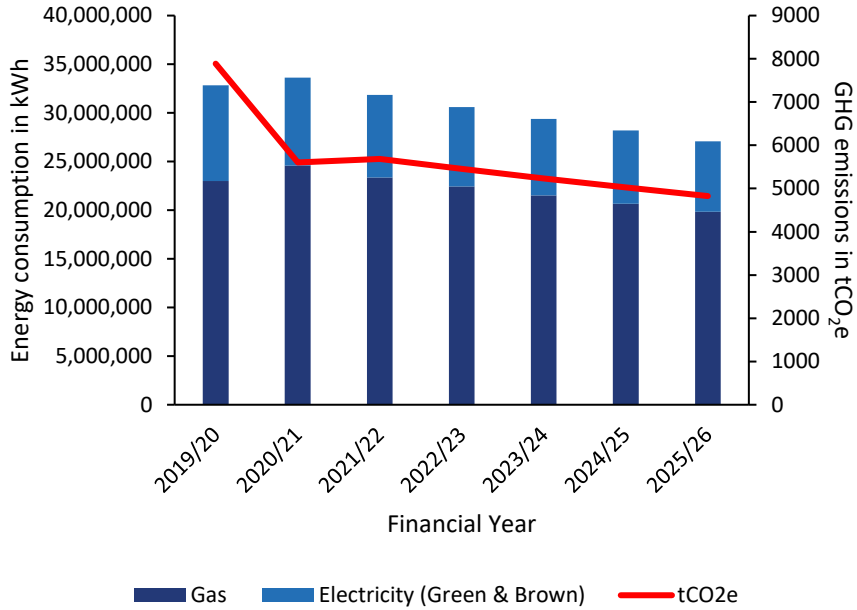


Figure 10 Energy consumption and related emissions from the built environment from 2019/20 to 2021/22 and forecast reductions until 2025/26

The Trust has procured 100% renewable and ‘green’ electricity from April 2020, resulting in an 80% reduction in emissions arising from procured electricity (as shown in the ‘dip’ of the red line in Figure 15).

Despite the negated emissions from renewable electricity procurement, there must be a reduction of both electricity and gas consumption at all of the sites, at a rate of 1,313,376 kWh per year.

Building Management Systems (BMS) are in place to regulate the heating and lighting of buildings across our sites. BMS set points are reviewed as part of Planned Preventive Maintenance (PPM) as necessary at all sites.

However, there needs to be a continual improvement and upgrade of the estate.

Detailed building energy surveys will be needed to provide robust energy efficiency recommendations at each of the Trust’s sites, building upon the works already completed.

The decarbonisation of the Trust’s heating systems will become increasingly important to reach net zero emissions.

This transition will inevitably result in much higher electricity consumption, and of particular concern is the viability of increasing the electrical site capacity (load in kilovolt-amps) from the electricity grid.

Extensive on-site renewable energy systems, such as solar photovoltaics and integrated large battery storage technologies, will help mitigate this, and provide additional resilience to power outages, with the potential to negate using the back-up diesel generators.

NHS LTP 17

NHS SC 18.4.1.2, 18.5

NHS NZ 3.1.1, 3.1.2

Target 7.2 Increase global percentage of renewable energy

Target 7.3 Double the improvement in energy efficiency

Target 13.2 Integrate climate change measures into policy and planning

Target 13.3 Build knowledge and capacity to meet climate change

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	Move away from any coal or oil boilers as a primary heat / energy source	21/22		£		Estates and Facilities	N/A
02	Enhance Planned Preventative Maintenance (PPMs) of all facilities and assets to be proactively energy-focused and to identify opportunities to upgrade equipment/plant.	22/23		£		Estates and Facilities	**LTP** 17 **SC** 18.4.2.1 **NZ** 3.1.1, 3.1.2
03	The Trust will procure 100% renewable electricity with Renewable Energy Guarantees of Origin (REGO) certificates backed by Npower.	22/23		£		Estates and Facilities	**SC** 18.5
04	Access the NHS Energy Efficiency Fund (NEEF) to upgrade all lighting to LED alternatives.	22/23		£		Estates and Facilities	**LTP** 17 **SC** 18.4.2.1 **NZ** 3.1.1, 3.1.2
05	Follow Estates 'Net Zero' Carbon Delivery Plan guidance on efficiency and decarbonisation protocols for the built environment.	22/23 & ongoing		£		Estates and Facilities	**NZCDP** **NZ** 3.1.1, 3.1.2
06	Install solar photovoltaic meters and collate a monthly generation report.	22/23		£		Estates and Facilities	**NZCDP** **NZ** 3.1.1, 3.1.2
07	Optimise energy use by embedding networked Automatic Meter Readers (AMRs) across the Estate with appropriate controls to reduce energy consumption and report sub-metered data monthly.	23/24		£		Procurement	**LTP** 17 **SC** 18.4.2.1 **NZ** 3.1.1, 3.1.2
08	Conduct detailed building energy surveys to identify further energy/thermal efficiency opportunities, including the installation of heat recovery systems on Air Handling Units (AHUs).	23/24		£		Estates and Facilities	**LTP** 17 **SC** 18.4.2.1 **NZ** 3.1.1, 3.1.2
09	Develop a Decarbonisation of Heat Plan that focuses on the phase out of existing gas-fired boilers and replacement with low-carbon alternatives, where feasible.	Ongoing		£		Trust Board	**LTP** 17 **SC** 18.4.2.1 **NZ** 3.1.1, 3.1.2

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
10	Explore the possibility of creating District Heat Networks with neighbouring partners.	Ongoing		£		Infrastructure Services	**LTP** 17 **SC** 18.4.2.1 **NZ** 3.1.1, 3.1.2
11	Conduct a comprehensive review of the chiller and HVAC systems.	22/23		£		Estates and Facilities	**NZ** 3.1.1
12	Look to procure 'green gas' through the Green Gas Certification Scheme as and when existing energy contracts are due for renewal.	23/24		£		Procurement	**SC** 18.5
13	Incorporate energy conservation into staff training and education programmes and deliver behaviour-based energy saving campaigns.	23/24		£		HR	**NZ** 3.1.1
14	Develop communication materials for the patients that highlight energy efficiency projects, and discuss plans with the local community, including exploring potential community energy projects.	23/24		£	✕	Estates & HR	**NZ** 3.1.1
15	Explore how the Trust can implement an ISO 50001 Energy Management System.	24/25		£		Estates and Facilities	**NZ** 3.1.1

Figure 11 Green plan action table for Energy and Emissions from the built environment

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

Not applicable

Capital Projects

The Built Environment of the NHS influences both the quality of care and environmental impact.

The Trust's design and construction of buildings will contribute to whether net zero can be achieved.

Buildings have significant environmental impacts in terms of emissions resulting from the use of gas, electricity and water. Improving the energy efficiency of a building is pivotal to reducing these impacts. However, there are embodied carbon emissions within materials, such as cements, steel and glass which are used in the construction of buildings. These indirect 'Scope 3' emissions are generally much greater than emissions caused by the operation of a building.

Cement and concrete production on its own accounts for a huge 8% of all global greenhouse gas emissions from all sources, according to the Dutch Environmental Assessment Agency.

The Trust, furthering a previous commitment to ensure all capital development complies with the 'Excellent' or above rating of the Building Research Establishment Environmental Assessment Method (BREEAM) ensures that the plans will focus on the reduction of building emissions from all sources.

Aside from new builds, rationalisation of the estate has been a key topic surrounding capital projects. BSMHFT works closely with local authorities and NHS Trusts to share property information and to minimise voids.

Estates & Facilities: Capital Projects

- Building energy efficiency standards should be considered for new builds and refurbishments. For example, BREEAM 'Excellent' rating, the Zero Carbon Hospital Standard, and implementation of on-site renewables.
- Construction supplier alignment to net zero commitments, such as on-site contractor measures on waste reduction and low emission construction plans.
- Low carbon substitutions and product innovation, such as lower embodied carbon construction materials.

NHS LTP 16

NHS SC 18.4.2.1, 18.4.2.3

NHS NZ 3.1.1, 3.3.1

8 DECENT WORK AND ECONOMIC GROWTH

Target 8.5 Full employment and decent work with equal pay

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Target 9.4 Upgrade all industries and infrastructures for sustainability

13 CLIMATE ACTION

Target 13.1 Strengthen resilience and adaptive capacity to climate-related disasters

Target 13.2 Integrate climate change measures into policy and planning

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	Implement the upcoming Net Zero Hospital Building Standard in any new builds and BREEAM 'Excellent' for any major refurbishments.	Ongoing		£		Estates and Facilities	**LTP** 16 **SC** 18.4.2.1 **NZ** 3.1.1
02	Achieve a target of 35 - 40* or better in GJ/100m^3 energy efficiency performance for the healthcare estate for all new capital developments and major redevelopments and/or refurbishments.	Ongoing		£		SSL	NZ 3.1.1
03	Explore options to achieve emissions reductions in smaller works and projects in the primary and secondary care estate.	22/23		£		Estates and Facilities	**NZ** 3.1.1
04	Encourage and measure local subcontractor and supply chain spend as part of the anchor institution approach.	22/23		£		Procurement	**NZ** 3.3.1
05	Ensure capital development accounts for risks identified in climate adaptation plans and addresses these in design/delivery.	23/24		£	⊗	Estates and Facilities	**SC** 18.4.2.3
06	Work with the Procurement team to enable specification of low and zero carbon materials and designs, as well as achieving waste reduction and other opportunities through contractor engagement.	23/24		£		Procurement	**NZ** 3.3.1
07	Continue to ensure that the design process is informed by staff, patients and community views for capital projects.	23/24		£	⊗	Estates and Facilities, Procurement & HR	**LTP** 16 **SC** 18.4.2.1 **NZ** 3.1.1
08	To install renewable energy / decarbonised heat supply on all significant New Builds / refurbishments	23/24		£		Estates and Facilities	NZ 3.1.1
09	Adapting premises and grounds (gardens / green spaces) and service delivery to mitigate risks associated with climate change and severe weather	23/24		£		Estates and Facilities	NZ 3.1.1

Figure 12 Green plan action table for Capital Projects

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

⊗ Not applicable

Water Efficiencies

In 2019/20, the Trust used 96,896m^3 of water.

There are emission impacts associated with the supply of fresh water and treatment of wastewater, equating to 98.5 tCO_2e in 2019/20 (see Figure 18). It is worth noting that the government emission factors for water supply and wastewater dropped by 57% in 2021/22 compared to the previous 6 years. Water consumption has remained relatively stable since 2019/20, but emissions fell by 56 tCO_2e in 2021/22 due the change in emission factors.

Although the emissions are low compared to those produced by energy use, being water efficient is important to prevent and alleviate water stress.

As a water efficiency and leak preventative measure, the Trust will look to collate the data from the Automatic Meter Readers water network. This will help us pinpoint areas of high water usage, understand how and where water is being used, locate leaks and take remedial action.

Details of ongoing water efficiency measures the Trust is taking can be found in the Water Management Action Plan.

Water conservation and sustainable drainage shall also be explored. Rainwater harvesters collect rainwater for non-potable purposes, such as for flushing toilets. They will help reduce water stress and potentially alleviate flooding by attenuating surface water run-off in storm events.

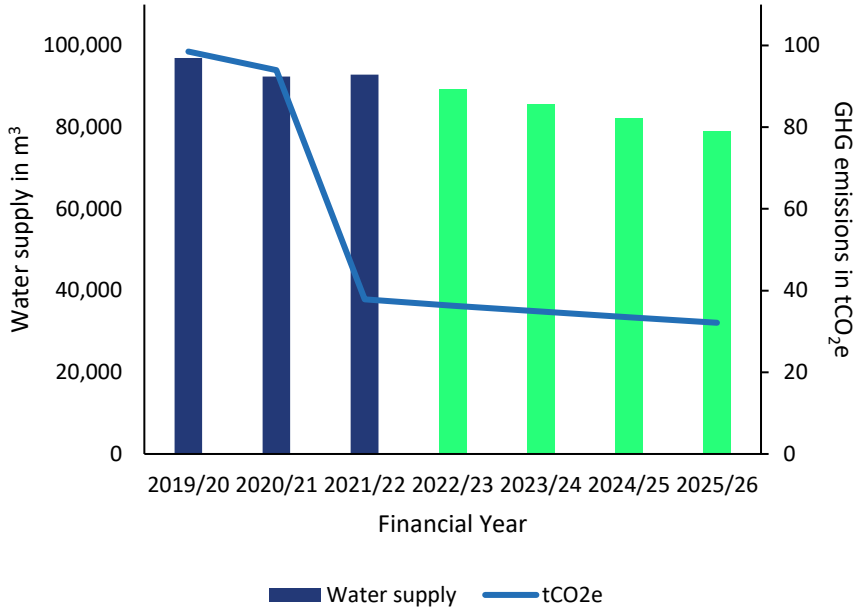


Figure 1 Stacked bar chart to show total water emissions from supply and wastewater treatment, and emissions reduction trajectory to 2025/26

Estates & Facilities: Water

- The Trust used **96,896 m^3** of water in 2019/20 – enough water to fill 37 Olympic-size swimming pools
- **98.5 tCO_2e** was attributed to the supply of water and wastewater treatment
- The Trust needs to reduce water consumption by 18,000 m^3 by 2025/26
- Water efficiency and sustainable drainage will become ever more important in the future

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	Explore and implement water efficiency targets on areas of the highest impact in the estate and delivery of care.	22/23		£		Estates and Facilities	**LTP** 17 **SC** 18.4.3.1 **NZ** 3.1
02	Develop new water intensity metrics and incorporate these into greenhouse gas emissions reporting.	22/23		£	⊗	Procurement	**NZ** 3.1
03	Collate water Automatic Meter Reader to determine water use patterns and aid leak detection, and report monthly	23/24		£		Estates and Facilities	**NZ** 3.1
04	Utilise the most water efficient technologies, such as low flow taps throughout the estate, when replacing equipment and developing new sites	23/24		£		Estates and Facilities	**NZ** 3.1
05	Explore where rainwater harvesting and grey water systems can be installed and utilised.	23/24		£		Procurement	**NZ** 3.1
06	Look to consolidate the suppliers across the estate to choose one or two that can provide the service, price, and efficiency the Trust expects.	Ongoing		£	⊗	Procurement	**LTP** 17
07	Work with staff and patients by communicating the importance of water efficiency.	Ongoing		£	⊗	HR	**NZ** 3.1
08	Incorporate water efficiency measures within climate change adaptation work with the local community.	23/24		£	⊗	Business Continuity	**NZ** 3.1

Figure 14 Green plan action table for Water

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

⊗ Not applicable

Waste and Recycling

The Trust collects eight main types of waste: general, clinical/offensive, medicines, mattresses, confidential paper, green and food waste, and electrical and electronic equipment (WEEE) waste. There are collections for other waste streams, such as metal, fluorescent lamps and waste cooking oil, though amounts collected are not reported.

Figure 20 shows the total waste arisings and emissions emanating from the waste streams. We stopped sending waste to landfill in 2019/20, with a corresponding drop in emissions. There has been little difference in total waste arisings in the last two years.

Standard waste is collected in general waste bins. This general waste is further segregated at the waste handling centre, with recyclable materials extracted, and non-recyclables sent for incineration as Refuse Derived Fuel (RDF) at an energy-from-waste centre. The Trust is enacting opt in dry mixed recycling (DMR) bins for our sites to increase our recycling rates.

Black bag waste goes to RDF whereas green waste is segregated for anaerobic digestion. Offensive waste either goes to deep landfill or high temperature incineration/RDF, depending on what the waste contains; less than 1% of all of our waste goes to landfill.

Food waste at patient sites is often fairly minimal as very little is wasted. However, food waste is collected at two of our sites at present.

Clinical waste volumes are also relatively low in mental health but have increased significantly in pandemic due to PPE. Some of the clinical waste is incinerated (sharps, medicines and offensive waste), whilst other types are ultra-high temperature processed (alternative treatment) before being further recycled.

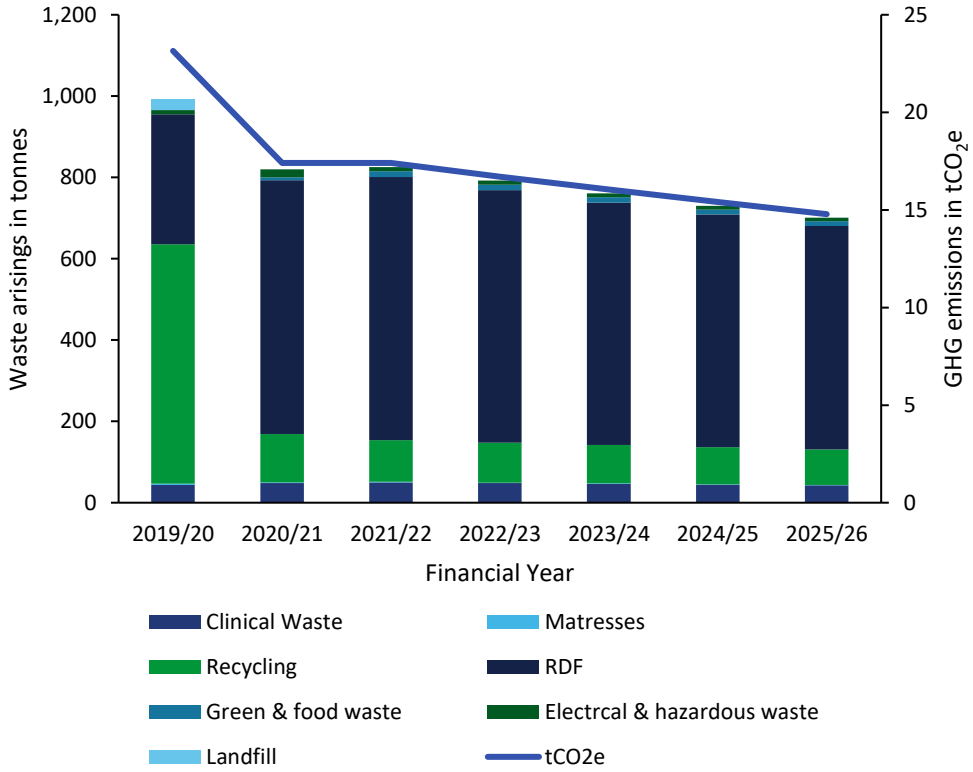


Figure 15 Waste arisings and emissions associated with waste streams and emission reduction trajectory to 2025/26

- **991 tonnes** of waste were produced, emitting **23.1 tCO_2e** in 2019/20
- **25 tonnes** of waste were landfilled in 2019/20, emitting **2.5 tCO_2e** (the last year we sent waste to landfill)
- Food waste bins and collections will ensure more waste food is used for energy and fertiliser generation

The COVID-19 pandemic has led to an increase in the usage of single-use plastic items; a necessary response to managing the crisis.

The Trust is mindful of the environmental impacts of single-use items throughout their lifecycle, from the crude oil used in their manufacture to the difficulty in recycling them at end-of-use.

Innovations are coming on to the market for reusable Personal Protection Equipment (PPE), such as face masks and aprons, that meet the various clinical safety standards. These alternatives should be explored to help reduce waste arisings.

The waste hierarchy of Reduce, Reuse, Recycle, Recovery (energy from waste) before disposal (landfill) must be embedded to ensure that waste duties of care and circular economic principles are being maintained. Recycling rates need to be improved. Shoring up the waste handling processes will ultimately reduce greenhouse gas emissions from waste treatment, other negative environmental impacts and disposal costs.

No.	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible Lead/Department	NHS Requirement
01	Collate *all* waste stream data from *all* sites (including sites where the Trust is not responsible for waste collection) and produce monthly reports.	22/23		£	⊗	Estates and Facilities	**NZ** 3.1
02	Ensure that single-use items in catering adhere to current legislation and elect to use sustainable alternatives as listed by NHS Supply Chain,	22/23		£		Estates and Facilities	**LTP** 17 **SC** 18.4.3.1 **NZ** 3.1
03	Install Dry Mixed Recycling (DMR) bins across all sites and start DMR collections,	23/24		£		Estates and Facilities	**LTP** 17 **SC** 18.4.3.1 **NZ** 3.1
04	Install food waste bins across all remaining sites and start food waste collections.	23/24		£		Estates and Facilities & Catering	**NZ** 3.1
06	Work with staff and patients by communicating the importance of waste segregation.	Ongoing		£	⊗	Estates and Facilities & HR	**NZ** 3.1
07	Explore whether reusable alternatives to single-use PPE items (aprons, wipes, face masks) are clinically appropriate.	23/24		£		Clinical Teams & Procurement	**NZ** 3.1
08	Explore how the Trust can implement an ISO-14001 Environmental Management System.	23/24		£		Estates and Facilities & HR	**LTP** 17 **SC** 18.4.3.1 **NZ** 3.1
09	Send no waste to landfill, and reduce, re-use, recycle and/or recover energy and heat from waste.	23/24		£		Estates and Facilities	**NZ** 3.1

Figure 16 Green plan action table for Waste

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

⊗ Not applicable

Biodiversity and Greenspace

"Access to greenspaces have positive mental and physical health impacts, and these beneficial effects are greatest for those from socioeconomically disadvantaged groups. However, these groups also have the least access to greenspaces." – **Delivering a Net Zero NHS**

The Trust wants to protect biodiversity within the estate and region and reduce any negative impact on biodiversity, both locally and globally.

Greenspace and nature are important for the health and wellbeing of patients and colleagues alike. At a global scale, greenspace affects the planet's ability to absorb carbon dioxide.

The Trust will promote access to greenspace, considering areas of operations where this may be lacking.

The Trust will also consider opportunities and risks for biodiversity in its sites, for example priority woodland areas in the region.

As part of the Project Dynamo initiative, there is a Gorgeous Gardens element that has tidied thirty four garden spaces across the three sites. The next phase is to begin renovations in a further eight gardens, to make them more inviting. At each of the three sites, there will be a dedicated patient and staff area.

NHS LTP 17

NHS SC 18.4.3, 18.4.3.1 to 18.4.3

NHS NZ 3.1.1, 3.3.2

11 SUSTAINABLE CITIES AND COMMUNITIES

Target 11.6 Reduce the environmental impacts of cities, focusing on air quality and waste

3 GOOD HEALTH AND WELL-BEING

Target 3.9 Reduce illnesses and deaths from hazardous chemicals and pollution

13 CLIMATE ACTION

Target 13.2 Integrate climate change measures into policy and planning

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	Review policies and practices around green space and biodiversity, to ensure that the Trust's impact on these is reduced. Identify opportunities to provide safe and easy access to green space, where appropriate.	23/24		£	⊗	Estates and Facilities	**LTP** 17 **SC** 18.1 **NZ** 3.5
02	Engage with regional partners to ensure that adequate green space and identified native species are considered and supported in planning and operations of the estate wherever possible. This includes supporting bees and other pollinators.	23/24		£		Estates and Facilities	**SC** 18.1 **NZ** 2.2, 3.5
03	Work to better understand biodiversity and habitat risks and opportunities in procurement. Where possible, apply evidenced standards or engage with suppliers to address issues, such as food production and provenance of meat, avoiding Palm Oil or limiting to RSCO-certified Palm Oil in food and cleaning products.	23/24		£		Procurement	**SC** 18.1
04	Continue to engage the staff, patients, and communities in green space initiatives.	Ongoing		£	⊗	Clinical leads & HR	**NZ** 2.2, 3.5

Figure 2 Green plan action table for Greenspaces

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

⊗ Not applicable

Medicines – Volatile Anaesthetic Gases and Inhalers

In addition to carbon dioxide emissions, the NHS clinical activity and prescriptions, such as using inhalers, nitrous oxide and volatile inhaled anaesthetics like desflurane, contribute to a considerable proportion of the NHS' GHG footprint.

The Long Term Plan commits the NHS to reduce GHG emissions from anaesthetic gases by 40% (which on its own could represent 2% of the overall NHS England carbon footprint reduction target which the NHS must meet under Climate Change Act commitments) and significantly reduce GHG emissions by switching to lower global warming potential (GWP) inhalers.

Nitrous oxide & Anaesthetic gases

BSMHFT is a mental health trust, which means that we only prescribe medicines for related conditions. Volatile anaesthetics are not used at our Trust. and we do not prescribe inhalers, which eliminates the carbon footprint of these sources from our care.

Inhalers

As a mental health trust, we prescribe very few inhalers, however the small amount we do procure still have an impact on our carbon footprint.

Both Dry-powder (DPI) and Metered Dose Inhalers (MDI) are prescribed. Metered dose inhalers use fluorinated gases as the propellant: in 2019/20, TBC% of the inhalers prescribed were MDI's. However, emissions data for inhalers could not be determined at this time due to data verification. This will be amended in future carbon footprint reporting.

The NHS Standard Contract stipulates that 30% of all inhalers prescribed across NHS England should be DPIs, potentially saving 374 $ktCO_2e$ per year, according to the NHS Net Zero report.

New Impact and Investment Fund (IIF) indicators which have been released provide an additional steer on prescribing lower-carbon inhalers.

Dry-powder inhalers are an appropriate choice for many patients and contain as little as 4% of the GHGs emissions per dose compared with MDIs. Fluorinated gases in MDIs mean that each 10ml to 19ml inhaler cannister has the equivalent emissions of 30 to 80kg of carbon dioxide!

At the end of use, inhalers still contain as much as 20% of high-GWP propellant. Greener disposal of these items, where residual fluorinated gases are captured and destroyed, is therefore another key priority. Lastly, overuse of inhalers leads to 250,000 tonnes of equivalent carbon emissions (250 $ktCO_2e$) annually across the UK, according to a new study.

BSMHFT will work across the Trust to address disposal and overuse, and work with staff and patients through the NICE Patient decision aid to help increase the uptake of low-carbon inhalers wherever appropriate.

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	To continue to develop systems and controls re type and quantity of medications issued, to impact Procurement, Storage, Packaging and Waste	Ongoing		£	⊗	Trust / SSL Pharmacy	**LTP** 17
02	To increase the ability to re-use and re-issue oversubscribed medications.	Ongoing		£		Trust / SSL Pharmacy	**LTP** 17
03	To significantly reduce reliance on less ozone friendly products such as Inhalers (NOx) and seek to use suitable / viable alternates.	Ongoing		£		Trust / SSL Pharmacy	**LTP** 17
04	Collate inhaler prescribing data and report quarterly.	22/23		£	⊗	Clinical Pharmacy Team	**LTP** 17
05	Work with staff and the Pharmacy Team to enable uptake of alternative inhalers where appropriate.	22/23		£		Clinical Pharmacy Team	**SC** 18.6 **NZ** 3.4.1
06	Set a target of prescribing at least 50% DPIs for all inhaler types.	23/24		£		Clinical Pharmacy Team	**NZ** 3.4.1
07	Set a goal to reduce MDIs to 25% of all non-salbutamol inhalers by prescribing DPIs and soft mist inhalers, where clinically appropriate.	24/25		£		Clinical Pharmacy Team	**IIF** ES-01 **LTP** 17
08	Set a goal of reducing the average emissions from salbutamol inhalers to 11.1kg per inhaler, where appropriate.	24/25		£		Clinical Pharmacy Team	**IIF** ES-02 **LTP** 17

Figure 3 Green plan action table for inhalers

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

⊗ Not applicable

Supply chain and procurement

The NHS is a major purchaser of goods and services, with NHS England alone procuring around £30 billion of goods and services annually. Procurement has major potential social, economic, and environmental impacts both locally and globally.

This includes the power of using local suppliers, the climate performance of equipment and the estate, and preventing modern slavery in supply chains.

BSMHFT is committed to engage with suppliers to meet the Green Plan and support the sustainable procurement objectives of NHS England wherever practicable.

Procurement and Climate Action

Supply chain emissions represent a huge portion of BSMHFT's overall carbon footprint. The Trust has baselined the estimated supply chain emissions from 2018/19 to 2021/22 utilising the GHG Protocol 'Scope 3' spend-based method. Spend-based emissions change yearly with total spend and will not help measure progress initially. However, they will help BSMHFT to identify the carbon hotspots to plan for actions.

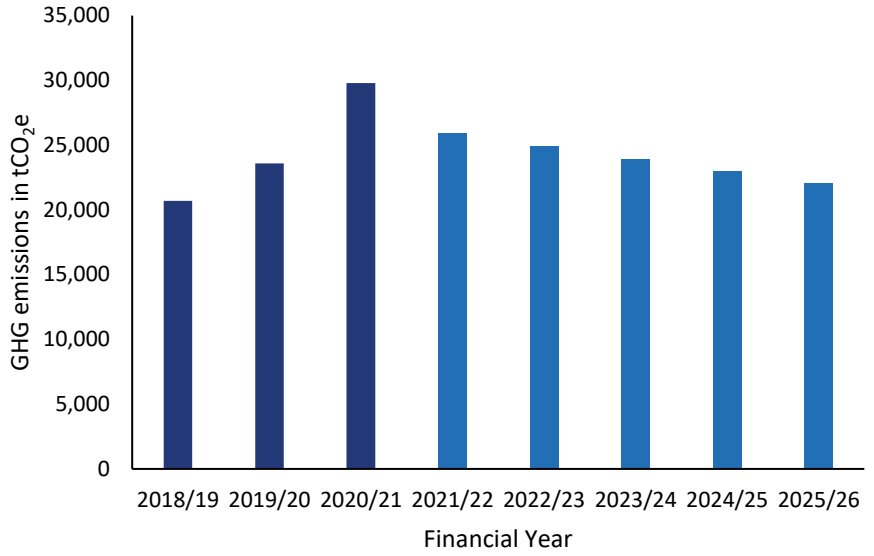


Figure 19 Emissions from the supply chain with reduction to 2025/26

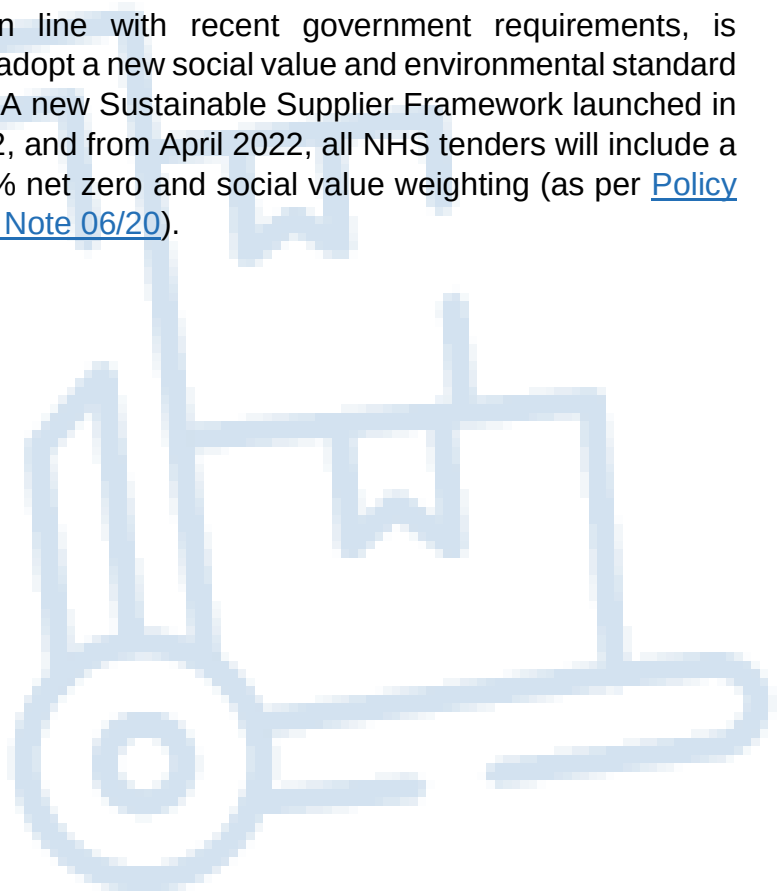
Supply Chain and Procurement

- Emissions from the supply chain were estimated to be **23,596 tCO_2e** in 2019/20.
- A new NHS Sustainable Supplier Framework launched in January 2022 and will require all suppliers to publish progress reports and continued carbon emissions reporting by 2030.
- An ISO 20400 Sustainable Procurement Strategy would enhance the environmental and social performance of the Trust's supply chain.
- Ensure tenders adopt the new social value procurement note PPN 06/20 and carbon management PPN 06/21 in major contracts in April 2022 and 2023 respectively.
- Reusable items such as face masks and aprons would reduce waste (as per the Waste section).
- Reclaiming mobility aids and other devices from patients will prevent waste and save money.

As a Trust, most items and services are procured through centralised NHS/government frameworks, such as NHS Supply Chain. These centralised frameworks already provide best value through bulk purchasing power and consolidation of orders. The Trust cannot control or influence the sustainability aspects of these routes of procurement and will benefit from the decisions made in how these frameworks operate.

In addition, the Trust is a signatory of the NHS Single Use Plastics Pledge and aims to reduce plastic catering consumables.

The NHS, in line with recent government requirements, is mandated to adopt a new social value and environmental standard in the future. A new Sustainable Supplier Framework launched in January 2022, and from April 2022, all NHS tenders will include a minimum 10% net zero and social value weighting (as per Policy Procurement Note 06/20).



From April 2023, contracts above £5 million will require suppliers to publish a carbon reduction plan for their direct emissions as a qualifying criterion (as per Policy Procurement Note 06/21).

By 2030, all suppliers will be required to demonstrate progress in-line with the NHS' net zero targets, through published progress reports and continued carbon emissions reporting.

PPN 06/020 & PPN 06/021 are procurement policy notices that relate to Central Government Departments, their Executive Agencies and Non-Departmental Public Bodies. However, BSMHFT as an organisation is not yet directly in scope.

These additional requirements will enable us to determine more accurately the carbon and social impact of the products and services that the Trust buys, and ensure suppliers are reducing the emissions associated with their operations and products.

In the interim, BSMHFT will explore ways to reduce single-use plastic items and research how reusable items can be incorporated such as masks and aprons into clinical practice.

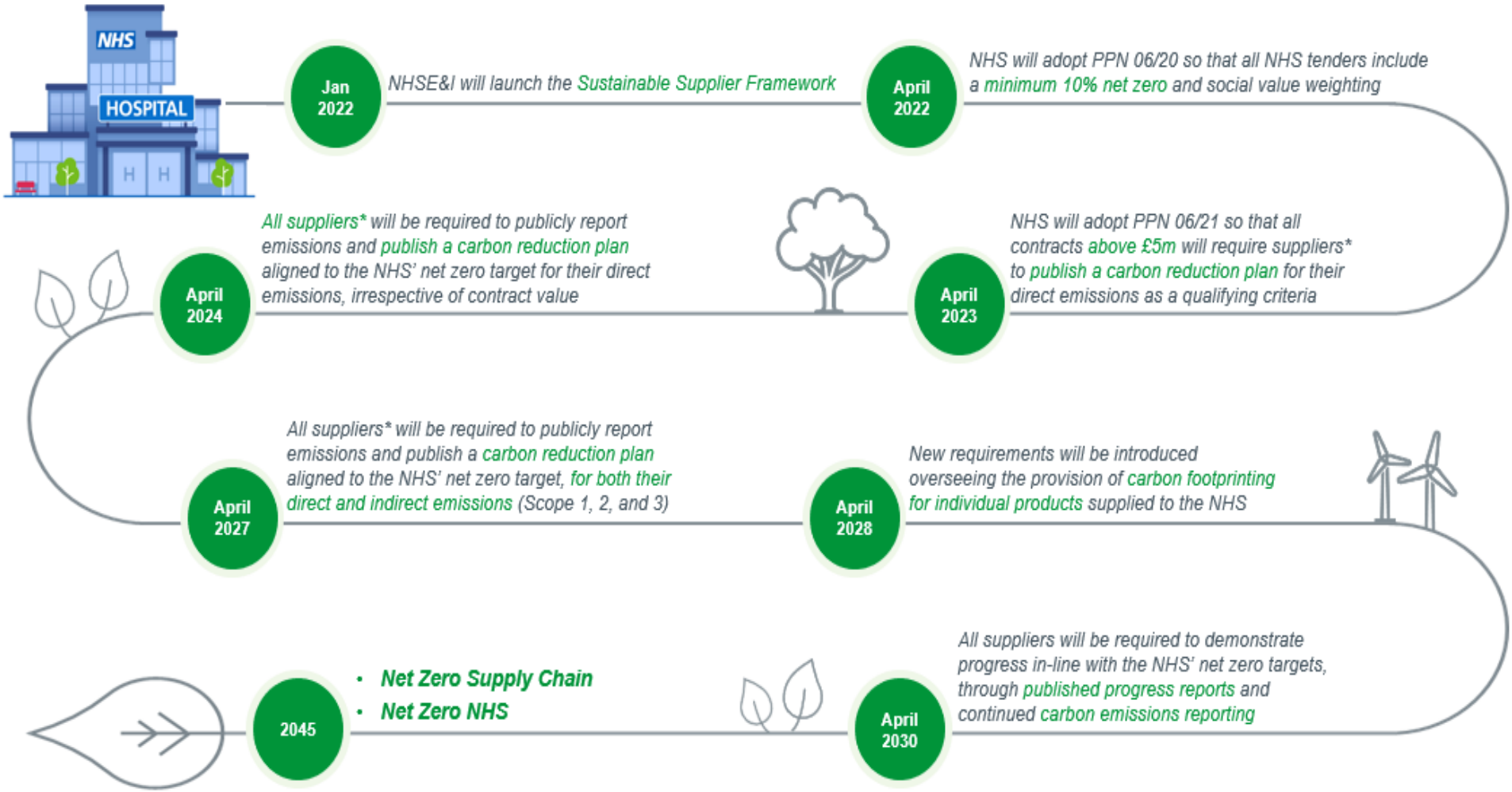


Figure 20 Building net zero into NHS Procurement – shows how NHS England will require all suppliers to provide carbon and social value reporting by 2030

Product retainment and lifecycle extension

Procuring well, ensuring best value for money and social and environmental benefits will remain a core principle for the wider NHS and the Trust.

However, keeping products in service for as long as possible, through maintenance and repair, is fundamental to a circular economy and drives down waste.

Mobility aids, such as walking frames, crutches and walking sticks, are given to outpatients where appropriate. Unfortunately, once issued, these items are no longer under the Trust's control. Though many outpatients will use mobility aids for the long term, many are only used for weeks or months, and for equipment with minimal use we can repair where possible and dispose as necessary.

Anchor trust role

This involves identifying opportunities for regional Small and Medium-sized Enterprises (SMEs), and engaging suppliers to ensure wider community benefits are met. Shared warehousing is already in place, with SSL running storage space for use by BCHFT and Primary Care Networks (PCN) for PPE during the pandemic.

While the Trust cannot reserve spend locally, proactive steps are taken to support inclusive growth, including a policy on the payment of the Real Living Wage for service suppliers

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NHS England Sustainable Procurement Objectives		
Net Zero	**Modern Slavery**	**Social Value**
Achieve the NHS Supply Chain Net Zero Targets	Eliminate Modern Slavery in the NHS supply chain both domestically and abroad	Ensure NHS procurement is a force for good helping local economies and improving wider determinants of health

Figure 21 Official NHS Sustainable Procurement Objectives Source: website

LTP 6.17, 17, 18

SC 18.6

Target 8.3 Promote policies to support job creation and growing enterprises

Target 8.7 End modern slavery,

Target 12.7 Promote sustainable public procurement practices

Target 13.2 Integrate climate change measures into policy and planning

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/department	NHS Requirement
01	To develop procurement processes and procedures that reduce wastage from the over-ordering / incorrect ordering of goods and or services.	Ongoing		£		Procurement	**SC** 18.6
02	To reduce all packaging as per the Plastics Pledge to stop using single use plastic items	Ongoing		£		Procurement	**SC** 18.6
03	Review the sustainable procurement approach to find relevant links that enable the Green Plan and work closely with NHS Supply Chain and NHS Improvement to promote their sustainability programmes.	Ongoing		£	✕	Procurement	**LTP** 6.17, 17
04	Adhere to the requirements of the NHS Sustainable Supplier Framework.	January 2022		£		Procurement	**SC** 18.6
05	Ensure tenders adopt the new social value procurement note PPN 06/20 and carbon management PPN 06/21 in major contracts from April 2022 and 2023 respectively.	April 2022		£		Procurement	**NZ** 3.3, 3.3.1
06	Ensure tenders adopt the carbon management PPN 06/21 in major contracts in April 2023.	April 2023		£		Procurement	**SC** 18.6
07	Ensure the purchase of 100% closed-loop recycled paper.	22/23		£		Estates and Facilities	**SC** 18.6
08	To ensure that standard quotation and tender documents ask the right questions re sustainability and carbon reduction, and that this is reflected within the scoring mechanism**.**	22/23		£	✕	Procurement	**SC** 18.6
09	Identify wider social, economic and environmental benefits for the local community and population when considering the purchase and specification of products and services.	23/24		£	✕	Procurement	**SC** 18.6
10	Create a new system for cataloguing and reclaiming mobility aids and other devices from patients.	23/24		£		Physio and Occupational Therapy	**NZ** 3.3, 3.3.1
11	Engage a key supplier on plans to align their operations and delivery with NHS Net Zero targets over time. Leverage NHS England and NHS Improvement Supplier Engagement Strategy approach for fostering partnerships.	23/24		£	✕	Estates and Facilities	**NZ** 3.3, 3.3.1
12	Work with NHS Supply Chain to address Modern Slavery and domestic and international supply chain environmental, and human rights risks, including those linked to PPE.	23/24		£	✕	Procurement	**SC** 18.6

No	BSMHFT Green Plan Actions	Target Year	Progress	Indicative Cost to achieve	Indicative Emissions reduction	Responsible lead/department	NHS Requirement
13	Explore the creation of an ISO 20400 Sustainable Procurement Strategy.	23/24		£		Procurement	**SC** 18.6
14	Work to identify impactful future supply chain emissions reductions opportunities and links to climate adaptation and other Green Plan commitments in procurement specifications and through contract delivery	24/25		£	✕	Procurement	**NZ** 3.3, 3.3.1
15	Enable procurement to support Social Value and Anchor Institution NHS aims, e.g., understanding and increasing local, SMEs and social enterprise spend or collaborating with suppliers to promote positive action in equalities or to collaborate on innovation or climate action.	Ongoing		£	✕	Procurement	**LTP** 18

Figure 22 Green plan actions for supply chain management and procurement

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

Not applicable

Food and Nutrition

Food illustrates the links between climate change and public health. The NHS Long Term Plan commits us to promoting plant-forward diets and reducing unhealthy options like sugary drinks on NHS premises.

Food production accounts for up to 26% of global greenhouse gas emissions[1]. Food and livestock production has a huge impact on biodiversity as well, and according to research collected by Our World in Data "of the 28,000 species evaluated to be threatened with extinction on the IUCN Red List, agriculture and aquaculture is listed as a threat for 24,000 of them".[2]

While promoting healthier foods and reducing emissions, the NHS can also source more food from local and regional producers where possible, increasing the positive economic impact for our communities and reducing the emissions associated with food transport.

BSMHFT will work to fulfil Long Term Plan priorities for food provision on the premises, promoting plant-forward diets, higher welfare and more sustainable food options, and supporting regional producers wherever possible.

[1] https://ourworldindata.org/environmental-impacts-of-food

[2] Source: Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, 360(6392), 987-992. Via https://ourworldindata.org/environmental-impacts-of-food

From September 2020 until September 2021, the Trust served an average of 800,000 meals (3 meals per day). The Trust offers a wide choice of meals for inpatients, including vegetarian and vegan options and other dietary requirements. There are seasonal and themed menus available at sites, with rolling four week menus. We use a mixture of chill cook food from suppliers and fresh food prepared and cooked in production kitchens. Where kitchens are prep kitchens, chill cook food is ordered a week in advanced.

The Trust spent an average of £1,116,000 on food and catering procurement in the year 19/20, with related emissions reaching 471 tonnes of CO_2 equivalent.

We have catering leads and senior management leads responsible for ensuring our catering is in line with all standards and mandatory requirements.

After signing the NHS' Single Use Plastics Pledge, plastics are removed from catering services and are replaced by biodegradable equivalents.

NHS LTP 2.18, 17

NHS SC 19.1, 19.2,19.3

NHS NZ 3.3.2

2 ZERO HUNGER

Target 2.2 End all forms of malnutrition (including obesity)

3 GOOD HEALTH AND WELL-BEING

Target 3.4 Reduce mortality from non-communicable diseases and promote mental health

13 CLIMATE ACTION

Target 13.2 Integrate climate change measures into policy and planning

14 LIFE BELOW WATER

Target 14.4 Sustainable Fishing

No.	BSMHFT Green Plan Actions	Target Year	Pro-gress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/dept.	NHS Req.
01	Reduce single-use plastics throughout the supply chain This includes (barring medical or clinical need): • Ceasing use of single- use plastic straws and stirrers • Ceasing use of single- use plastic cutlery, plates or single-use cups made of expanded polystyrene or oxo-degradable plastics Signing up to and observing the Plastics Pledge by 31 March 2021	Ongoing		£		Catering Services	**SC** 18.6
02	To introduce systematic approach to monitoring of both production food waste and in particular plate food waste and reduce accordingly.	Ongoing		£	✕	Catering Services	**NZ** 3.3.2
03	Review food and catering to explore opportunities to push forward Long Term Plan plans to address obesity, benefit BSMHFT's local area, and reach Net Zero emissions.	Ongoing		£	✕	Catering Services	**LTP** 2.18, 17 **SC** 19.1, 19.2 **NZ** 3.3.2
04	Explore a digital meal system for at least one NHS site to enable accurate meal planning and reduce food waste.	22/23		£		Estates and Facilities & Catering Services	**NZ** 3.3.2
05	Phase in more Plant-forward diets and other updated NHS requirements and explore greater seasonal menu changes.	23/24		£		Procurement & Catering Services	**LTP** 2.18

No.	BSMHFT Green Plan Actions	Target Year	Pro-gress	Indicative Cost to Achieve	Indicative Emissions Reduction	Responsible lead/dept.	NHS Req.
06	Limit sugary drinks sales at Trust facilities and fulfil other updated NHS requirements.	23/24		£		Catering Services	**SC** 19.3
07	Work with NHS Supply Chain to ensure positive impacts from contract management and maintain updates to Government Buying Standards sustainable food criteria.	23/24		£		Procurement & Catering Services	**SC** 19.3
08	Work with regional partners to identify opportunities for local and SME food producers.	22/23		£		Procurement	**NZ** 3.3.2
09	Ensure all food providers meet or exceed the requirements outlined in Report of the Independent Review of NHS Hospital Food	23/24		£		Facilities & Procurement	**SC** 19.3
10	Review internal and NHS strategies for sustainable food procurement, including sustainable fish, elimination of palm oil or limit to RSPC-certified palm oil and Fairtrade items where relevant.	23/24		£		Procurement	**LTP** 17
11	Continue to work with patients and partners on the link between food, health and obesity, as well as the emissions impact.	Ongoing		£	⊗	TBC	**LTP** 2.18 **SC** 19.1, 19.2 **NZ** 3.3.2

Figure 23 Table to show green plan actions for food and nutrition

Indicative cost:

£ No or low cost

£ Moderately expensive

£ Significantly expensive

Indicative emissions reduction:

Low or incremental reduction

Moderate reduction

Significant reduction

⊗ Not applicable

Adaptation

Climate change will make extreme weather, such as heatwaves, droughts and flooding, more prevalent. Sea-level rise and increased risk of Vector Borne Diseases, such as Lyme Disease, may also impact the communities of Birmingham and Solihull.

It is therefore important that the Trust examines the potential risks and ensure that buildings, systems and processes are adapted to cope with the possible impacts of increased flooding, heat waves and storm damage. This process has begun with our Adaptation Plan but will need to be updated going forwards.

The changing climate poses risks for vulnerable populations in the community, but also impacts the Trust's estate, its ability to operate and the supply chain.

The Trust already engages with other public authorities and partners in tackling extreme weather events, such as flooding. BSMHFT will analyse these risks and develop actions for care delivery, estate planning and management, including flood risks across the estate and service area.

Climate change has serious implications for health, wellbeing, livelihoods, and society. Its direct effects result from rising temperatures and changes in the frequency and strength of storms, floods, droughts, and heatwaves — with physical and mental health consequences (The Lancet, 2017)

The NHS Long Term Plan reinforces the requirement to embed resilience and sustainability into the Trust's healthcare services. Climate change adaptation is critical to achieving this. The impacts of climate change on health, services, infrastructure and BSMHFT's ability to cope with extreme weather events will place significant additional demands on services in the future.

Climate change adaptation in the NHS is about organisational resilience and the prevention of avoidable illness, embracing every opportunity to create a sustainable, healthy and resilient healthcare service. Reducing the Trust's impact on the environment may not only help to mitigate climate change, but reduce the organisational running costs, ensure business continuity, and reduce health inequalities. Above all, it's about ensuring that the NHS and the Trust's buildings, services, staff and patients are prepared for what lies ahead.

Birmingham and Solihull Mental Health NHS Foundation Trust will work with partner organisations and other public sector organisations to develop a climate change adaptation plan to mitigate the consequences of climate change in respect of health and service delivery.

"As climate change accelerates globally, in England we are seeing direct and immediate consequences of heat waves and extreme weather on our patients, the public and the NHS. Adaptation is the process of adjusting our systems and infrastructure to continue to operate effectively while the climate changes. It is critical that the NHS can ensure both continuity of essential services, and a safe environment for patients and staff in even the most challenging times." - **Greener NHS**

No	BSMHFT Green Plan Actions	Target Year	Pro-gress	Indicative Cost to Achieve	Responsible lead/dept.	NHS Req.
01	Appoint a Climate Change Adaptation lead and follow the recommendations of the third Health and Social Care Sector Climate Change Adaptation Report.	23/24		£	Trust Board	**LTP** 17 **SC** 18.4.2.3 **NZ** 1
02	Embed Climate Change as a strategic risk within the corporate risk register and manage appropriately	23/24		£	Business Continuity	**SC** 18.4.2.3 **NZ** 1
03	Create an ISO14090 Climate Change Adaptation Plan, including plans for adapting the premises to mitigate climate change and extreme weather risks, using a recognised methodology, that is routinely reviewed considering the changing climate and scientific advancements.	23/24		£	Business Continuity	**SC** 18.4.2.3 **NZ** 1
04	Work with NHS Supply Chain to better understand the climate change risks in the supply chain and proactively seek to make the supply chain 'climate-ready'.	23/24		£	Procurement	**SC** 18.4.2.3 **NZ** 1
05	Embed and adapt existing health-related contingency planning, such as Flooding Plans to reflect predicted climate change impacts.	23/24		£	Business Continuity	**SC** 18.4.2.3 **NZ** 1
06	Incorporate newly emerging climate-related health care risks into contingency planning, such as the increasing prevalence of Vector Borne Diseases.	23/24		£	Business Continuity	**SC** 18.4.2.3 **NZ** 1

Figure 24 Table to show green plan actions for climate adaptation

Conclusion

The purpose of this Green Plan is to set out how our Trust will become more sustainable, reduce our greenhouse gas emissions and ultimately reach net zero emissions by 2040, and net zero plus by 2045. In the document, we have put forward our progress so far and the actions that will be necessary to drive change until 2025/26 and beyond.

This Green Plan is a living document and will be regularly reviewed for progress against the action plans. As such, actions and targets may be revised where necessary.

Adequate budgets and resources will be allocated to achieve the Trust's goals and deliver sustainable care. The Trust will look to achieve the 'quick wins' first, although significant investment will be required in future years, especially in making BSMHFT's buildings 'climate-ready'.

Climate Change poses many threats to the care population and how care is delivered. This Green Plan will enable us to become an adaptable and resilient organisation. It will help steer the direction of travel with other local anchor institutions, bolstering the Trust's ability to provide a continued critical service.

BSMHFT's dedicated workforce is core to its care provision and delivery of this Green Plan. With the necessary structures in place, it will be the people and service users who will drive the changes to make us a more sustainable organisation. The Trust will continue an open dialogue with all stakeholders to improve the Green Plans and the delivery of care.

For more information, please contact

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This Green Plan was created for Birmingham and Solihull Mental Health NHS Foundation Trust in partnership with Inspired PLC.