

**The Royal Orthopaedic Hospital
NHS Foundation Trust**

Green Plan (Refresh)

2026- 2040



September 2025

Executive Summary

The National Health Service (NHS) is one of the largest employers in the UK, providing health care to a population of over 68 million people. The NHS is also one of the UK's biggest users of energy and has a range of consumables that stretches from medical supplies to catering and cleaning products.

In 2020, the NHS became the world's first health system to commit to reaching net zero emissions. The NHS Executive set out plans to reduce the impact of the NHS on the environment and aims to be the world's first net zero national health service by 2040.

At the Royal Orthopaedic Hospital (ROH), the Trust Board of Directors are equally committed to reducing the organisation's impact on the local health economy and its population, we are actively contributing towards the NHS meeting this realistic, yet ambitious target.

This document has been revised in 2025 and forms part of the overarching Birmingham and Solihull Integrated Care System (BSOL ICS) Carbon Reduction Plan. It sets out the ROH responses and series of action plans to work towards/achieving net zero. These are challenging, innovative and mirror targets which achieve the level of ambition that has been set out nationally. The ROH is fully committed to meeting its obligation and responsibility to our population which we serve.

Matthew Hartland
Chief Executive

Simon Page
Chairman

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1. Delivering a Net Zero NHS

Climate change presents an immediate and growing threat to health. The UK is already experiencing more frequent and severe floods and heatwaves, as well as worsening air pollution. Up to 38,000 deaths a year are associated with air pollution alone, disproportionately affecting the most deprived and further exacerbating health inequalities.

The impact of climate change is expensive for society and the NHS, with the costs of heat-related mortalities from climate change alone estimated at £6.8 billion per year in the 2020s and predicted to rise to £14.7 billion per year in the 2050s.

The Health and Care Act 2022 sets out climate change duties with two clear targets to respond to the challenge:

- for the emissions we control directly (the NHS Carbon Footprint), net zero by 2040, with an ambition to reach an 80% reduction by 2028 to 2032
- for the emissions we can influence (our NHS Carbon Footprint Plus), net zero by 2045, with an ambition to reach an 80% reduction by 2036 to 2039

The Health and Care Act 2022, further underscores the importance of the NHS's robust response to climate change, placing new duties on NHS England and all trusts, foundation trusts, and integrated care boards to contribute towards statutory emissions and environmental targets. The Act requires commissioners and providers of NHS services specifically to address:

- the UK net zero emissions target
- the environmental targets within the Environment Act 2021, and
- to adapt to any current or predicted impacts of climate change identified within the Climate Change Act 2008

Meeting this commitment will only be achievable if every part of the NHS – more than 1.3 million of us – are working together, we all have a role in delivering a net zero NHS, providing health and high-quality care for all, now and for future generations.

Nationally, significant progress towards achieving net zero has been made, over the last 3 years this includes:

- over £1 billion in funding secured by NHS trusts through the Public Sector Decarbonisation Scheme (PSDS), this is expected to reduce NHS energy costs by over £260 million a year
- NHS-wide decommissioning of desflurane, an environmentally damaging anaesthetic gas with a higher global warming potential than its readily available alternatives
- ongoing reduction in waste from nitrous oxide, responsible for the largest overall volume of emissions from anaesthetic and medical gases, saving around £5 million annually
- progressing high-quality, lower-carbon respiratory care, supporting patients to improve their lung health while reducing inhaler emissions by around 300 kilotons' of carbon (Kt/CO₂e) a year

- the introduction of requirements for NHS suppliers to disclose their emissions and publish a carbon reduction plan, in line with the NHS Net Zero Supplier Roadmap

The ROH continues to apply for external funding through the variety of government initiatives and support the local health care system with the aim to:

- prioritising interventions that support world-leading patient care and population health, reducing inequalities while tackling climate change and broader sustainability issues
- plan and make considered investments while increasing efficiencies and delivering value for taxpayers
- be ambitious to reach net zero carbon emissions and reflect on learning from our delivery to date

Workforce and Leadership

The transition to a net zero NHS will be driven by its people. The ROH will support its staff and leaders to learn, innovate and embed sustainability into everyday actions. We have:

- appointed a designated executive board-level net zero lead to oversee green plan delivery with clearly identified operational support
- assessed workforce capacity and skill requirements for delivering the green plan, considering good practice examples such as hybrid roles, apprenticeships, fellowships and NHS estates sustainability career pathways
- promoted, and consider setting uptake targets for, core training offers set out on the Greener NHS Training Hub
- promoted specialist training for staff groups who underpin the delivery of green plans, such as board members, procurement, finance, estates and facilities staff and clinicians

Clinical Transformation

The ROH supports and is committed to moving to out-of-hospital and digitally enabled care where clinically appropriate, improving prevention of ill health and reducing health inequalities. These changes also underpin our commitment to net zero.

The ROH supports net zero clinical transformation thereby ensuring high-quality, preventative, low-carbon care is provided to orthopaedic patients at every stage. We are focused on reducing emissions and improving quality of care in our clinical areas by:

- identifying a clinical lead with oversight of net zero clinical transformation, with formal links into board-level leadership and governance
- establishing a clinical lead and multidisciplinary working group responsible for reducing emissions in our clinical area(s)
- completing quality improvement project(s) in our clinical area(s) that focus on a measurable reduction in emissions, with co-benefits for outcomes and quality of care, efficiency and reducing healthcare inequalities
- sharing learning and outcomes through clinical networks, the ICB and NHS England

The two main areas of focus for the ROH are ‘diagnostic tests & procedures’ and ‘medical pathways’, with a focus on acute and/or long-term conditions.

Digital Transformation

The ROH is building strong digital foundations to transform care by improving access, quality, productivity and reducing emissions. However, digital services can also increase emissions. The ROH will work with NHS England’s ‘What good looks like framework’ to prioritise sustainability in the procurement, design and management of digital services to meet the objectives of the ‘Greening government: ICT and digital services strategy’.

The ROH is actively looking to:

- maximise the benefits of digital transformation to reduce emissions and improve patient care, for example, by reducing the use of paper and providing virtual pathways where clinically appropriate
- support the ‘Digital Maturity Assessment’, consider opportunities to embed sustainability in digital services by:
 - using circular and low-carbon approaches to IT hardware management, which may include longer device lifetimes, leasing models, buying refurbished or remanufactured equipment and ‘PC power down’ configuration
 - considering low carbon hosting, promoting good data hygiene (such as, deduplication and archiving) and engaging digital suppliers

Medicines

Medicines account for around 25% of NHS emissions. A few medicines account for a large portion of these emissions, for example, anaesthetic gases (2% of NHS emissions) and inhalers (3%). The ROH is actively reducing these “point of use” emissions, which improve patient care and reducing waste. Actions to reduce emissions from the medicines supply chain are set out under ‘Supply chain and procurement’.

The ROH will:

- work with primary care to support high-quality, lower-carbon respiratory care in line with clinical guidelines for ‘asthma’ and ‘chronic obstructive pulmonary disease’
- work in line with ‘National medicines optimisation opportunities’, address overprescribing and oversupply while supporting patients in greatest need, taking a shared decision-making approach and personalising care

The ROH has taken actions to:

- reduce nitrous oxide waste from medical gas pipeline systems (MGPS) by progressing the actions outlined in the updated ‘nitrous oxide waste mitigation toolkit’
- cease use of the volatile anaesthetic agent desflurane in line with ‘national guidance’, allowing exceptional use only as published by the ‘Neuro Anaesthesia and Critical Care Society’

Travel and Transport

The NHS fleet is the second largest in the country, consisting of over 20,000 vehicles. It directly contributes to harmful air pollution. The 'NHS Net zero travel and transport strategy' outlines a roadmap to decarbonise NHS travel and transport, while also providing cost-saving and health benefits.

The ROH is actively looking at:

- developing a sustainable travel plan by December 2026, to be incorporated into the green plan (for example, as an annex), focusing on active travel, public transport and zero-emission vehicles, supported by a clear understanding of staff commuting (NHS England guidance will be available in 2025)
- offering only zero-emission vehicles through vehicle salary sacrifice schemes from December 2026 onwards (for new lease agreements)
- planning to purchase, or entering new lease arrangements for, zero-emission vehicles only from December 2027 onwards
- forming partnerships with local authorities and local transport authorities to maximise funding and infrastructure opportunities

Estates and Facilities

There are significant opportunities across the NHS estate to reduce emissions and lower costs while improving energy resilience and patient care.

The ROH is focused on:

- improving energy efficiency through the installation of LED lighting, insulation and double-glazed windows
- replacing fossil fuel heating systems with lower carbon alternatives, such as heat pumps or connecting to a heat network
- increasing use of renewable energy by investing in on- or near-site renewable energy generation to meet NHS energy demand

The NHS is developing a pipeline of revenue and carbon saving projects together with:

- working with local partners to ensure estate decarbonisation planning aligns with local priorities, infrastructure plans (for example, heat networks) and funding opportunities
- identifying opportunities to support primary care estates decarbonisation, such as through the 'Boiler upgrade scheme'
- supporting Trusts that have not accessed PSDS funding previously to develop applications (this may include exploring joint bids between trusts or other partners)
- ensuring the green plan aligns with the 'ICS 10-year infrastructure strategy'

The ROH is looking into:

- developing a heat decarbonisation plan (HDP), which includes:

- identifying and prioritising the phasing out of all existing fossil-fuel primary heating systems by 2032 and seeking to remove all oil primary heating systems by 2028
- considering 'local area energy plans' and opportunities from 'heat networks' and other low-carbon solutions
- identifying any installations in scope of the UK Emissions Trading Scheme and outline plans to reduce emissions in line with allocated targets
- developing business cases to deliver the measures outlined in the HDP, as well as accompanying energy efficiency and renewable energy interventions, with a view to submitting a funding application through the PSDS if projects cannot be financed through internal budgets
- ensuring all applicable new building and major refurbishment projects are compliant with the 'NHS Net Zero Building Standard'

Supply Chain and Procurement

The 'NHS net zero supplier roadmap' outlines steps suppliers must follow to align with the NHS net zero ambition between now and 2030. Roadmap implementation is a shared responsibility across trusts, systems, regional procurement hubs and nationally.

The ROH will seek to embed circular solutions, such as using reusable, remanufactured or recycled solutions when clinically appropriate, which are often cost savings.

The ROH is actively looking to:

- embed the 'NHS net zero supplier roadmap' requirements into all relevant procurements and ensure they are monitored via Key Performance Indicators
- encourage suppliers to go beyond minimum requirements and engage with the 'Evergreen Sustainable Supplier Assessment' to support a single conversation between the NHS and its suppliers on sustainability priorities
- reduce reliance on single-use products, considering how to safely build this work into clinical improvement projects (see 'Net zero clinical transformation')

Food and Nutrition

The ROH continues to implement the 'National standards for healthcare food and drink', this requiring NHS organisations to deliver high-quality, healthy and sustainable food and minimise waste.

The ROH is actively looking to:

- measure food waste in line with the 'Estates Returns Information Collection (ERIC)' and set reduction targets
- seek opportunities to make menus healthier and lower carbon by supporting the provision of seasonal menus high in fruits and vegetables and low in heavily processed foods

Adaptation

Climate change threatens the ability of the NHS to deliver its essential services in both the near and longer term. Resilience and adaptation are built into business continuity and longer-term planning to avoid climate-related service disruptions. Partnership working between sustainability leads, public health, emergency response teams and estates leads at Trust and system level is crucial.

The ROH is actively working:

- with providers and commissioners of NHS-funded services to comply with the adaptation provisions within the 'NHS Core Standards for emergency preparedness, resilience and response (EPRR)' and the 'NHS Standard Contract' to support business continuity during adverse weather events
- with colleagues to set out actions to prepare for severe weather events and improve climate resilience of local sites and services, including digital services
- in partnership with emergency response colleagues and others, identify interdependencies between services and the necessary mutual aid requirements to prevent service disruptions
- providers and commissioners to share findings with resilience partners (for example, local resilience forums and directors of public health) to ensure critical information is integrated into broader emergency planning and climate adaptation planning practices
- to factor in the effects of climate change when making infrastructure decisions and designing new facilities, including enhancements like improved green spaces, drainage systems and passive cooling solutions
- to ensure adequate cascading of weather health alerts and relevant messaging across the organisation, in line with the government's 'Adverse Weather and Health Plan'

2. About the Royal Orthopaedic Hospital NHS FT

The Royal Orthopaedic Hospital NHS Foundation Trust (ROH) has been providing specialist orthopaedic care at a local, regional, national and international level for over 200 years. Situated within the Birmingham and Solihull Integrated Care System (BSOL ICS), it has circa 1500 staff, 120 beds (over 6 wards) and 14 operating theatres. The hospital provides specialist care for all areas of orthopaedics including arthroplasty, arthroscopy, spinal, foot & ankle, hand, MSK, pain management and core therapies, and is a national centre for orthopaedic oncology.

The hospital is in the south of Birmingham with good transport access for patients, staff and visitors. In 2021 it invested in a major capital redevelopment with a new modular build theatre and ward complex, this provided 4 new 'state of the art' operating theatres to complement the 10 existing theatres and a new 20 bedded, mainly single en-suite accommodation, ward.

3. The ROH Governance Process

The ROH Green Plan delivery is overseen by our Chief Finance Officer / SIRO / AEO who is an executive director of the Trust. This role is also supported by other executive directors and their senior leadership teams. The ROH Green Board reports through to the Finance & Performance Committee and upward to the Trust Board.

The ROH has governance arrangements in place to co-ordinate the ROH green plan delivery, we have regular green plan delivery board meetings chaired by the organisation's board-level net zero lead and attended by relevant directors/senior leaders.

The ROH Green Plan is reviewed annually where we consider progress made and any new priorities, guidance, technology and other emerging enablers. The ROH works with our ICB partner and other trusts to support the delivery of our green plan publishing data in our annual report. Metrics are also tracked through the 'Greener NHS dashboard' and 'Estates Return Information Collection' portal.

Some of our green planning actions, where benefits can be captured immediately with little requirement for financial investment are actioned, these include waste reduction, safe re-use of products and optimisation of medicines usage.

Other initiatives do require initial capital investment but also offer substantial efficiency savings, examples of this include LED lighting, systems to manage and reduce energy consumption, and the electrification of the ROH fleet in line with the 'Net Zero Travel and Transport Strategy'.

The ROH considers how net zero principles can be routinely integrated into all our business-as-usual upgrades and backlog maintenance when developing our green plan.

The ROH is actively pursuing the wider government funding to support the UK-wide transition to net zero. Nationally the NHS has already:

- secured over £1 billion in investment to cut energy costs and reduce carbon emissions through the 'Public Sector Decarbonisation Scheme (PSDS)'
- invested £40 million in LED lighting through the NHS Energy Efficiency Fund, with an additional £75 million available to support LED lighting and building management system projects in 2024/25
- identified other schemes including the 'Public Sector Low Carbon Skills Fund', the 'Workplace Charging Scheme', and the 'Boiler Upgrade Scheme' to support green heating installations in smaller properties such as primary care practices

The ROH workstreams have 'executive sponsors', roles within the ROH have also been identified as 'leads roles' for the developed ten workstreams:

- Workforce and Leadership – Executive Chief People Officer
- Clinical Transformation – Chief Nurse & Executive Medical Director
- Digital Transformation – Chief Digital Information Officer
- Medicines – Chief Pharmacist
- Travel and Transport – Deputy Director of Delivery
- Estates and Facilities – Head of Estates and Head of Facilities
- Supply Chain and Procurement – Managing Director (Procurement)

- Food and Nutrition – Head of Facilities
- Adaptation – Head of Capital and Emergency Planning Officer
- Communication – Head of Strategy and Communications

4. The Carbon Footprint Targets

The ROH plan is working towards achieving its key strategic targets, these being:

- For the emissions we control directly (the NHS Carbon Footprint), we will reach net zero by 2040, with an ROH ambition to reach an 80% reduction by 2028 to 2032
- For the emissions we can influence (our NHS Carbon Footprint Plus), we will reach net zero by 2045, with an ROH ambition to reach an 80% reduction by 2036 to 2039

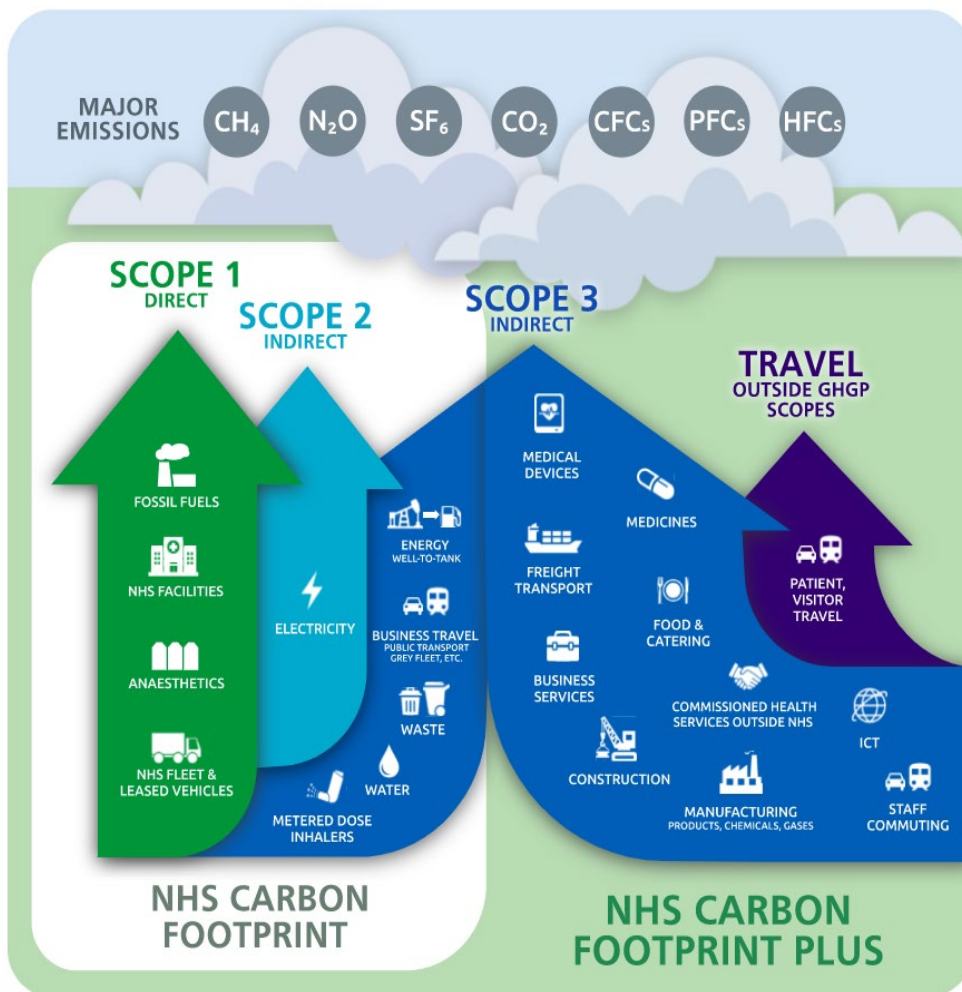


Fig. 1 NHS Net Zero Plan (2021)

5. ROH Green Plan Progress

The ROH has been actively working to reduce its carbon emissions in line with the NHS targets, We have previously lacked the ability to record our current usage form which future deductions could be made, so in 2024/25 the ICS agreed on a shared resource to measure current baseline usage:

Current Usage in Tonnes of Carbon Dioxide Equivalent (tCO₂e)

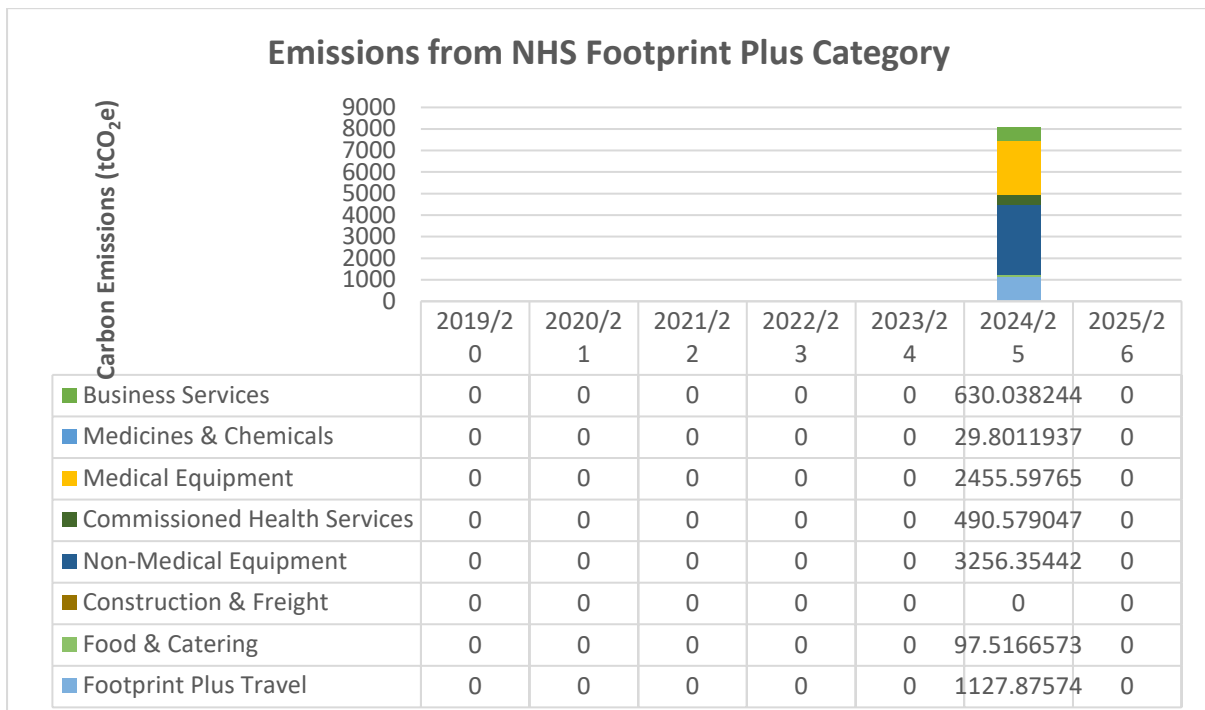
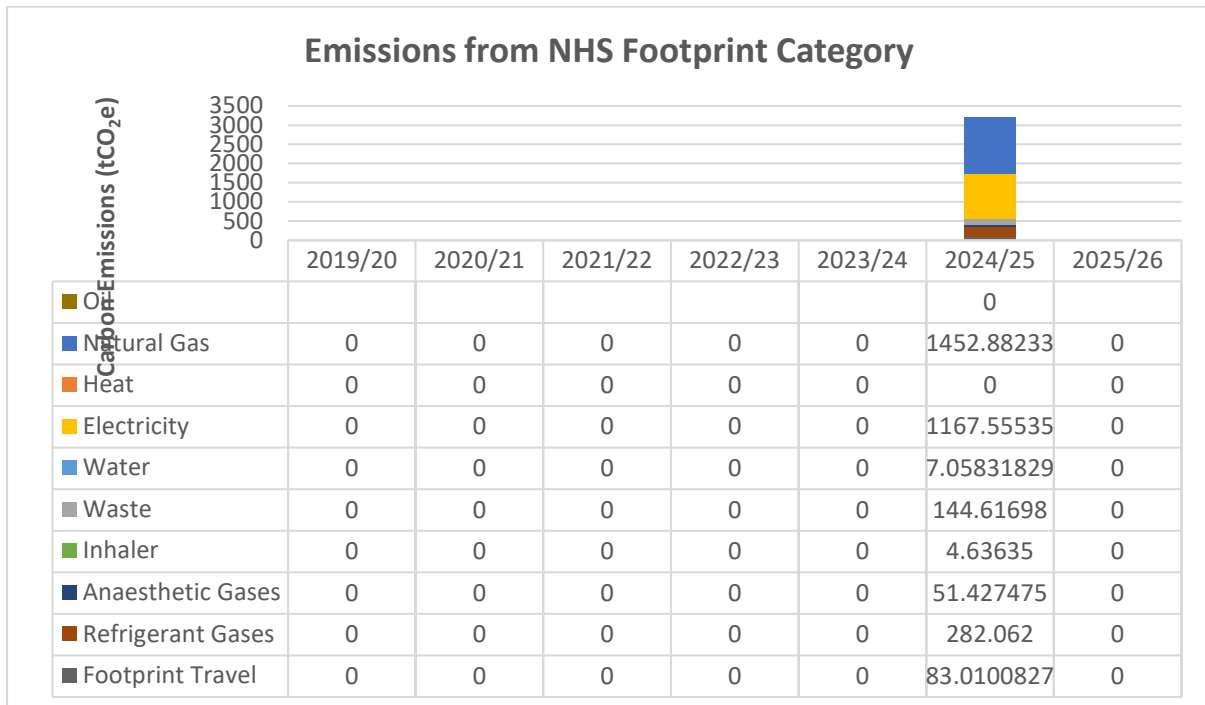
Summary (tCO ₂ e)	2024/25	% of tCO ₂ e	NHS Average
Medicines & Chemicals	30	0.3%	20%
Medical Equipment	2,456	21.8%	10%
Non-Medical Equipment	3,256	28.9%	8%
Other Supply Chain	728	6.4%	24%
Building Energy	2,620	23.2%	10%
Waste & Water	152	1.3%	5%
Anaesthetic Gases & Inhalers	56	0.5%	5%
Refrigerant Gases	282	2.5%	0%
Business Travel & NHS Fleet	83	0.7%	4%
Patient & Visitor Travel	677	6.0%	6%
Staff Commuting	451	4.0%	4%
Commissioned Health Services	491	4.3%	4%
Medicines, Medical Equipment & Other Supply Chain	6,469	57.3%	62%
Carbon Footprint	3,193	28.3%	24%
Personal Travel	1,128	10.0%	10%
Commissioned Health Services Outside NHS	491	4.3%	4%
NHS Carbon Footprint	3,193	28.3%	24%
NHS Carbon Footprint Plus	8,088	71.7%	76%

TOTAL: 11,281

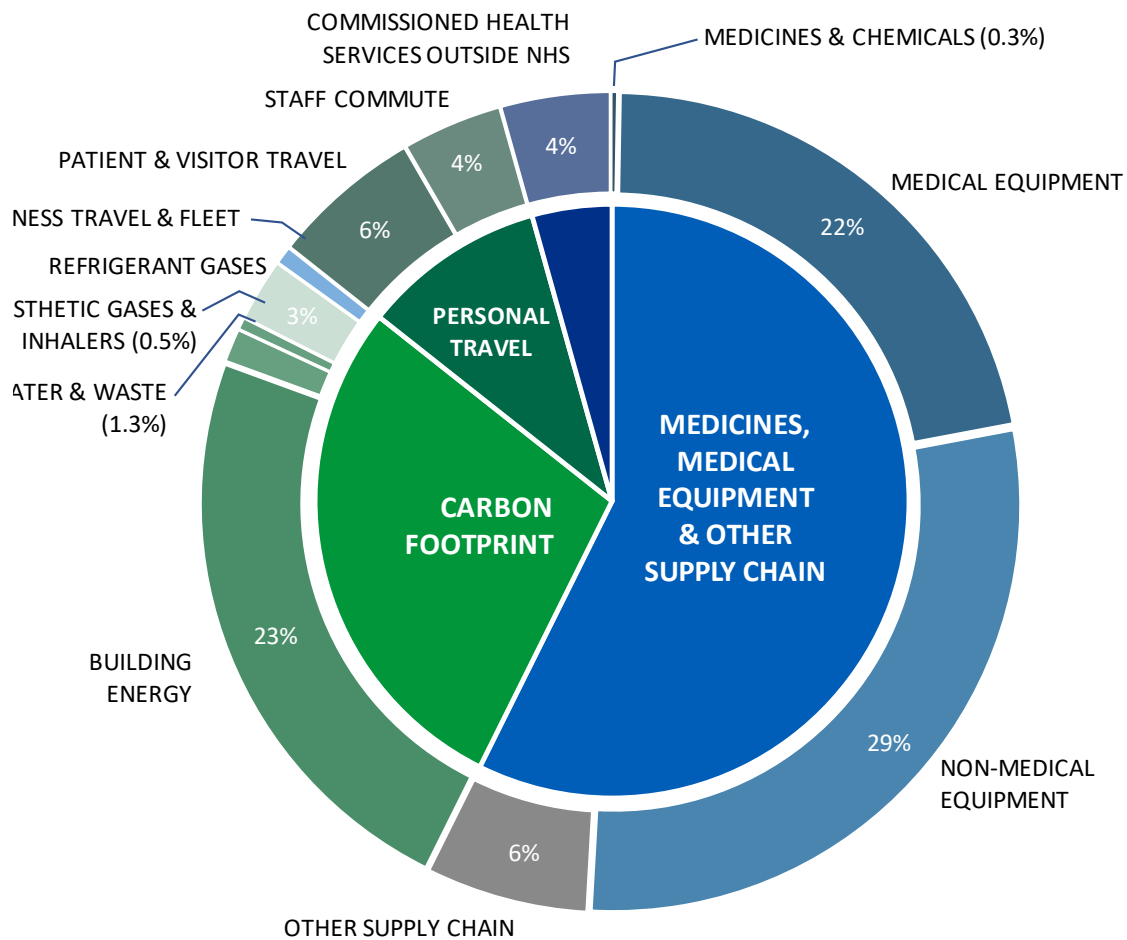
convert to heating this number of homes: 4,178

Note: Staff commuting and patient & visitor travel data have been estimated based on National NHS carbon averages (4% & 6% respectively). Inhaler data has been apportioned using MDI and DPI Greener NHS carbon factors. eClass data includes uncategorised entries, which have been re-categorised with the available data.

The ROH emissions data breaks down into our 'NHS Footprint Category' and 'NHS Footprint Plus Category' as follows:



The above information can also be expressed in a pie chart as follows:



6. ROH Organisational Vision

In the summer of 2021, the Trust Board received the NHS Net Zero report and the aims and targets within. In 2025 the Trust Board remains committed to playing its part in achieving these aims and developing realistic plans to deliver the ROH's contribution towards a net zero NHS.

The ROH since 2022 has started to examine and question its approach to environmental factors, carbon reduction and achieving a more ecological sustainable Trust. The Trust Board is aware that these initiatives form the beginning of an extensive series of transformational improvements and has committed to developing and delivering a net zero plan alongside our ICS partners in BSOL.

Through our ROH Green Board we have developed a Net Zero Strategy, using NHS guidance we have generated 10 workstreams (which includes communication) in our bid to become a net zero NHS organisation.

The ROH Green Plan has been revised and refreshed using the latest NHS guidance. Through the ROH Green Board we continue to monitor the established and updated workstreams which have been designed around the following themes:

1. Workforce and Leadership
2. Clinical Transformation
3. Digital Transformation
4. Medicines
5. Travel and Transport
6. Estates and Facilities
7. Supply Chain and Procurement
8. Food and Nutrition
9. Adaptation
10. Communications

7. Workforce and Leadership – progress & plan

Critical to the success of the Trust’s net zero ambition is ensuring our workforce feels educated and empowered to achieve our sustainability objectives. The ROH is looking to create a workplace culture where people understand how they can positively contribute to net zero and align this with supportive Trust policies and practices which enable a sustainability culture to develop, in turn, supporting the objectives of the other workstreams.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Engage with the Carbon Literacy Project to increase staff awareness and education around the impact of carbon emissions and how they can make a difference	Trust to identify a lead to expand education and awareness training on the impact of carbon emissions, additional advice and support provided by T&D	
Encourage staff to sign up to the Greener NHS Community	No progress but discussions will be started with existing staff networks to see how work can be incorporated as well as reviewing options to start a greener network group	
Link sustainability to the Trust’s health and wellbeing agenda incentivising sustainability actions to increase staff engagement	In progress, information to be included in the November Wellbeing weeks with support from external partners including Living Streets. Information will also form part of the regular Wellbeing updates to Trust Board members and managers meetings	
Further embed an agile/flexible working culture across the Trust	Staff survey results indicate our staff feel that they can work more flexibly: Flexible working 2022: 6.40 2023: 6.47 2024: 6.66 Work life balance: 2022: 6.37 2023: 6.53 2024: 6.70	

	This is above national average	
Ensure that sustainability and the responsibilities of staff in terms of moving towards net zero are included within recruitment literature, Trust induction and job descriptions for all staff	Included in the Trust's induction programme, also narrative added in the recruitment literature	
Ensure all leaders are aware of their responsibilities with regards to sustainability and include this in individual's objectives and team annual plans	Included in the Trust's documentation for annual planning	

8. **Clinical Transformation – progress & plan**

The focus for the operational management team is to lead and implement a range of projects which reduces the Trust's reliance on printing and use of paper, reducing the number of patients attending the site thereby reduce transport emissions and support the reduction of waste.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Increase virtual consultations	Virtual consultations including video in June 2025 was at 9.4%, the yearly target is 19% rising to the national target of 25%. Increasing virtual appointments is challenging due to the absence of a video platform. We do encourage telephone clinics but sometimes with the nature of the speciality the patient must be physically assessed by the clinician	
Increase number of patients on a patient initiated follow up pathway	The patient is given an option to choose whether they should be followed up within a defined clinical window. If no contact during the clinical window the patient is removed from the waiting list. The intention being to reduce any unnecessary appointments In relation to PIFU the ROH are 4 th best nationally at 10.3% with an aspiration of 12%	
Increase use of Advice and Guidance	Increase the electronic and virtual offer for patients by reducing paper forms / print outs and offering an online coaching app which patients can access at any time The ROH have an action plan aligned to the system action plan for advice	

	and guidance. This is monitored through the Trust primary care interface group.	
Increase uptake of electronic letters	The Trust has implemented electronic letters and text messages to reduce the number of printed letters being sent to patients. This has had the short-term effect of reducing missed appointments but in the long term will support the ambition to become a paperless Trust	
Increase virtual aspects of the Joint Care pathway	Virtual coffee catch ups are underway for patients who have taken part in our Joint Care programme Look to roll out programme beyond Joint Care	
Reduction in theatre plastic wrapping	Explore the reduction of plastic wrapping for theatre equipment kits thereby reducing unnecessary repeat sterilisation of equipment Lead to be appointed	

9. Digital Transformation – progress & plan

The Digital Programme Team work closely with operational teams from across the organisation to establish new digital processes and technologies to enhance patient care.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Electronic GP documentation	PICS deployed which has digitised all discharge letters, DNR and notification of death. Remainder will be fully digitised under EPR deployment	
Offsite printing of clinic letters	Partially complete, fully digitised under EPR deployment	
Video Consultations	Doctor Dr Programme, functionality available however was not pursued due to clinical preference. To be revisit under EPR deployment	
Digital Patient letters -reduces paper output	PICS deployed which has digitised GP documentation such as all discharge letters, DNR and notification of death. Remainder will be fully digitised under EPR deployment	

EPMA – NEWS2, Observations and Assessments captured electronically (previously paper) Introduction of digital clinical noting and operation notes	Implemented through PICS deployment	
RPA – paper processes have been redesigned to a digital process	NDL, 15+ digitised forms live	
Patient SMS Appointment service	Doctor Dr Programme implemented	
Referral Management System – replaces paper-based referrals and imports referrals from Primary care via an electronic system	Implemented	
HIE/ShCR – Onboarded the Trust to the new ICS shared care record for all BSOL (Primary, Secondary and Social Care providers) with patient records access available from providers including cloud migration	Implemented through clinical portal	
<p>Utilise Virtual/Video Consultations further to reduce journey and travel costs and reduce carbon emissions for service users</p> <p>Digital Care Pathway Redesign will assist reducing current paper-based processes across the trust and allow patient records to be viewed digitally</p> <ul style="list-style-type: none"> • PreOp Digitisation – reduce journey and travel costs to service users • Clinical Portal – Patient record accessible digitally, Access to Shared Care record for West Midlands • Medical Record Digitisation. Convert all current paper hosted medical records to a digital version 	Clinical Portal went live in 2025, shared care record implemented. Further digitisation under EPR deployment.	
Reduce the printer estate significantly by digitising as many paper-based processes as possible • The implementation of Order Comms to allow imaging requests to be conducted via the trusts EPMA solution mitigating paper processes	Order comms for imaging deployed onto PICS in 2023	
Automation – Redesign current paper processes where possible and use Robotic Process Automation to convert to digital data entry points ensuring data is captured into efficient databases and not stored on paper	Partially implemented will be completed under EPR deployment	

Expand the electronic documentation service to Primary Care further by onboarding other Trust services	To be implemented under EPR deployment	
Centralised PMO function – Implement a solution that hosts all Project / Programme related documents into a web-based repository	DDaT Triage process implemented with centralised DDaT PMO function covering all DDaT projects across ROH	
Digitally enable care pathways for service users will significantly reduce travel and journeys to the Trust with ‘care closer to home’ being delivered through remote consultations and monitoring	Patient engagement using Apps in certain pathways e.g. MyRecovery. Further digitisation under EPR deployment	
Front-line digitisation of clinical records, clinical and operational workflow and communications aided by digital messaging and electronic health and care record systems (EPR)	Partially complete through PICS, Clinical Portal & Theatreman. Full implementation through EPR Deployment (2026 onwards)	
Large-scale migration of Trust data centres into the cloud; reducing the need for the storage of large volumes of data on power consuming hardware	Cloud migration implementation progressing	
Replacement of the current telephony solution with a cloud-based solution reducing power consumption	Telephony project with Mytel in progress due to Go Live in October 2025	
Liaise with suppliers providing digital services/solutions to the Trust to minimise their environmental impact and adapt their solutions accordingly to support the Net Zero principle	Working with the procurement hub and suppliers to ensure they conform to the Net zero roadmap	
Enhance the electronic documentation service to Primary Care into a fully Digital “Transfers of Care” model	Partially implemented through Share Care records & GP communication, further items planned through EPR deployment	
Aspire to become a paperless Trust	To be achieved through EPR deployment and optimisation post (2026 onwards)	
Provide a Digital Front Door for service users to allow access to a Patient Portal for Applications, Data submissions	Some work done under NHS App but not fully integrated with ROH systems and don’t have patient engagement platform, plan to be done under EPR deployment	

10. Medicines – progress & plan

Medicines account for about 25% of emissions within the NHS in England. There are 2 types of medicines that account for a high amount of these emissions these being Anaesthetic Gases and Nitrous Oxide at 2% and Metered Dose Inhalers at 3%.

The areas at the ROH which directly influences us is the anaesthetic gases and Nitrous Oxide usage. The inhaler usage and changes to different devices will be led by the CCG/ICS and we (ROH) will then follow their guidance.

The anaesthetic gases which we have eliminated from use at the ROH are desflurane and nitrous oxide. Desflurane has a Global Warming Potential of 2540 whereas the alternative, Sevoflurane, has a global warming potential of 130.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Reduce the use of Desflurane	Desflurane not used at the Trust	Green
Reduce the use of Nitrous Oxide	Nitrous oxide decommissioned at the Trust	Green
Reduce the use of plastic Pharmacy bags	Switched to paper bags in 2023	Green
Recapture system for Sevoflurane	Sevoflurane re-capture system requires investment	Yellow
Reduce Pharmacy deliveries	Robust system in place to ensure a sufficient stock holding, plus urgent ordering process in place	Green
Use of cool sticks instead of ethyl chloride spray	Scoping exercise completed, currently has minimal impact	Green
Entonox usage	Entonox usage on site is being monitored	Green

11. Travel and Transportation – progress & plan

The aim is to reduce local air pollution as this has a direct impact on our patients, staff and the local community. We can attribute 14% of all the NHS emissions to patient, staff, visitor, business and NHS fleet travel. In comparison, the building energy use, water and waste totals 15%.

The Trust has already replaced its fleet diesel cars by purchasing two zero emission vehicles (ZEV). This has demonstrated a saving of 9,164kg of CO2 per annum. Through the Covid pandemic, new and innovative ways of staff working and delivery of services were introduced (e.g. remote working / virtual consultation) again reducing the number of journeys to our site.

As an organisation we should be embedding active, clean and low carbon travel to reduce carbon emissions linked to our business activity. The following objectives have been set:

Action	Progress to date	Status
Reduce carbon emissions and air pollution from non-emergency patient transport	Promoted required standard with non-emergency patient transport providers.	Green
Develop a Healthy Travel Strategy with targets & measures to reduce single occupancy car journeys	Working towards developing a healthy travel strategy	Yellow
Use ROH/BSOL partnerships to reduce our emissions in supply chain transportation	Working with other partners and the procurement hub	Yellow

Increase the amount of people travelling to the ROH by active and sustainable travel methods	Working towards monitoring people travel to ROH	
Flexible/hybrid working for staff to reduce the workforce travelling to site	Flexible & hybrid working policy in place	
All staff having access to video & teleconferencing minimising business miles	Microsoft TEAMS system operational	
Consider the Clean Air Hospital Framework by monitoring indoor and outdoor air quality on the site to identify hotspots, with a view to improving these areas	ROH is part of the West Midlands Clean Air and NHS Air Quality Group	
All contracts to include a sustainability and travel criteria	Engaging with procurement hub	
Introduce a sitewide 'No Idling Policy'	No idling signs installed at key locations around Trust	

Staff Travel

The Trust already has a plan in place for staff travel and promotes active and sustainable transport as a mode of travel for commuting. The Trust received a Bronze Accreditation for its staff travel plan from Mode Shift Staff, working with Birmingham Council and Transport for West Midlands. The Trust has worked in partnership with the charity Living Streets to promote walking and provide Dr Bike sessions facilitated by the charity New Roots.

Through a grant application the Trust has been successful in purchasing an E-bike, two hybrid bikes and storage lockers, for staff to use for business use and to borrow for their commute. This gives staff a flavour of how their commute could be improved and encourages them to purchase their own bicycle using the Cycle to Work Scheme.

A recent travel survey indicated 60% of staff travel by single occupancy car. There is an opportunity for modal change with 45% of staff living within five miles of the site and almost 70% of staff living within ten miles.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Develop our Greener Car Park Management Policy	Under review, link to staff travel survey data	
Promote our cycling and cycle to work scheme – develop a cycle to work Lead and Cycling Club	Further promotion to be scheduled	
Provide more secure cycling storage onsite	Review current onsite cycle storage	
Provide dedicated showers / changing / locker facilities that can be accessed by patients, visitors and staff	Plans being developed to increase provision	
Organise Dr Bike sessions with teaching sessions for staff/patients to learn new skills	Re-engage with Dr Bike sessions	

Promote staff discounted public transport tickets and route planning	Discounted bus tickets available to staff	
Working with local public transport providers to offer new staff 'free public transport' on their commencement date	One-month free travel vouchers available for staff giving up their car for alternative mode of transport	
Staff Lease Car scheme to offer Ultra Low Emission (ULEV) and Zero Emission Vehicles (ZEV), enabling staff to replace their diesel/petrol vehicles	ULEV and ZEV vehicles offered under the scheme	

Patient and Visitor Travel

Reducing patient travel to our site is challenging due to the type of treatment being delivered (MSK, orthopaedic and spinal conditions). We proactively work towards decreasing the level of patient travel required through the following actions:

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Work with local transport providers to provide discounted travel for patients	Discounted West Midlands bus travel available to ROH staff	
Introduce 'How They Travelled Today' onto the booking-in systems to collect data	To be progressed	
Conduct a Travel Survey for patients and visitors	2025 travel survey to be sent out.	
Provide information to patients and visitors on active and sustainable travel options	To be progressed	

Business Travel

The Trust Zero Emission Vehicles (ZEV) fleet cars were commissioned in May 2021 and has shown a significant reduction in emissions. Individual staff business travel has reduced through video / teleconferencing, more work it to be undertaken on reasons for business travel.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Business travel to be linked to greener car park management policy	To be progressed	
Increase in Video/Teleconferencing (staff meetings)	Video and teleconferencing available to staff	
Introduce a competitive 'Cycle to Meeting' rates	To be progressed	
Promote use of Trust Pool Bicycles	Pool bicycles available, further promotion scheduled	
Collate payroll information on mileage claims and reasons for travel	To be progressed	

12. Estates – progress & plan

Energy Adaptation

Technological development in ‘alternative energy’ will play a big part in adapting our environments to meet the future needs of the service and working towards our ‘Net Zero’ target. The development of a ‘Solar Farm’ on the roof of Blocks 37 & 76 has, in part, enabled us to move over to an alternative energy solution.

The super insulating of existing buildings which are to remain on site will be a necessity in the drive to reduce energy leakage and improve the buildings thermal qualities. When existing buildings are refurbished a review of the thermal capability will be undertaken and judged against the latest Building Regulation standards for energy preservation.

The orientation of our buildings can result in solar gain, where buildings are in direct sunlight then solar shading such as ‘Brise Soleil’ is being investigated. The use of ‘Free Heating’ and ‘Free Cooling’ is also being considered and harnessed.

Action	Progress to date	Status
Develop a heat decarbonisation plan and business case	To be progressed	Yellow
Ensure all new build / major refurbishment projects comply with ‘NHS Net Zero Building Standard’	To be reviewed during new build / major refurbishment projects	Green
Improving energy efficiency through the installation of LED lighting, insulation and double-glazed windows	60% of the Trust has LED lighting. Reviews are taking place on insulation levels and double glazing	Yellow
Replacing fossil fuel heating systems with lower carbon alternatives, such as heat pumps	Older boiler installations replaced for more energy efficient boilers. Heat pumps systems require large scale investment and an externally funding investment plan.	Red
Increasing use of renewable energy on site	Solar panels systems installed on blocks 37 & 76, further expansion to be explored.	Yellow
Review solar shading, free heating and free cooling options	Free cooling introduced to block 52	Yellow
Introduce sub-metering throughout site	Trust has engaged with supplier and roll-out underway	Yellow
Optimisation of Building Management System	Working with controls expert to optimise systems	Green

13. Facilities – progress & plan

Waste reduction is important; the Trust is looking at ways of reducing the quantities of waste sent for landfill in relation to healthcare clinical waste and general household commercial waste.

Waste is a significant cost to the NHS, with clinical waste requiring expensive methods of disposal. Disposing of waste efficiently and correctly will reduce cost, reduce the strain on

natural resources and improve the environment. Making moderate changes on how waste is managed within the Trust is evidenced by the introduction of the non-infectious waste stream, confidential waste, cardboard segregation and dry mixed recyclables segregation. These waste streams along with others waste reduction and recycling schemes will be further developed and improved.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Increase recycling rates	Introduced paper only recycling – redundant office furniture is sent to the BSOL warehouse and repurposed. Departments source from the warehouse in the first instance	Green
Reduce plastic waste	Introduced an ROH plastic recycling scheme that captures theatre plastic trays	Yellow
Educate users on better waste segregation	Introduced toolbox talks with staff, new intranet page for waste and segregation posters on display	Green
Work with clinical colleagues to reduce single use medical equipment	Introduced more stringent recycling regimes within theatres focussing on excess packaging around instrument	Yellow
Introduction of non-infectious waste stream, confidential waste stream, cardboard segregation and dry mixed recyclables segregation.	All waste streams active throughout the Trust	Green

Healthcare Clinical waste

While not seen as a prominent contributing factor to the reduction of carbon emissions, the introduction of the non-infectious waste stream has been a success, in relation to waste compliance and regulation. We continue to work with our clinical waste treatment providers Stericycle to pursue alternative avenues of how waste is treated and sent for final disposal.

Our infectious waste stream is currently treated via an alternative treatment process. Waste is autoclaved rather than incinerated or treated with harmful chloride substances. Once treated waste will either be used as a fuel stock in the manufacturing of cement or sent to deep landfill.

Commercial Waste

The recycling provision for dry recyclables (paper, card, glass, plastics and metals) has increased where permitted by healthcare guidance. This equates to 252 tonnes diverted from landfill, and Energy from waste incineration 27% of our total waste arising. This has been achieved by providing additional internal recycling bins, greater operational management of cardboard capture, and working closely with our commercial waste contractor Veolia. The Trust has managed to avoid a further 93 tonnes our commercial waste entering landfill.

General waste has been diverted from landfill and is used as a fuel stock to generate power that services the Birmingham region.

The specific deliverables for these workstreams are as follows:

Action	Progress to date	Status
Removal of all plastic, spoons, knives and forks – replaced by biodegradable bamboo	Complete	Green
Removal of plastic single use cups – replaced with bio-degradable composite materials	Complete in part, now exploring the possible of reintroducing re-usable hot drinks cups	Yellow
Removal of plastic straws- replaced with paper composite materials	Complete	Green
Removal of polystyrene take-away trays – replaced with bio-degradable composite materials	Complete, plus we have introduced re-useable takeaway containers	Green
Removal of un-recyclable take away hot drink's cups- replaced with bio-degradable composite materials” and the introduction of re-usable hot drinks cups	Exploring the reintroduction of reuseable hot drinks cups	Yellow
Confidential paper waste is 100% recycled	Complete	Green
Cardboard is 100% recycled	Complete	Green
Dry mixed recyclable bin rollout capturing paper, card, plastics and metals	Waste bins roll out 98% - OPD outstanding, reviewing requirements to enable a reduced purchase of replacement bins	Yellow
Glass only recycling bins	In part, looking to introduce glass only recycling caddies within all areas	Yellow
Battery recycling stations introduced	Complete	Green
Introduction of bulky scrap metal recycling	Complete	Green
Cleaner hazardous waste disposal (Waste electronic, electrical equipment WEEE)	In part, looking at alternative storage solutions such as storage container (waste compound 1)	Yellow
Re-useable mop and microfiber heads	Complete	Green

Facilities continue to undertake reviews of all waste management systems and processes to increase recycling tonnage, deploy better waste segregation and seek to reduce plastic waste through education, training and communication.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Removal of Plastic Milk bottles (Inpatient areas). Data capture analysis undertaken – It is estimated that we use over 17,000 plastic milk bottles per annum	Due to space constraints unable to action the introduction of milk pergolas. Exploring new ways on how's best to capture plastic milk bottles	Yellow
Examine other plastic waste produced and seek alternative solutions to recycle	Exploring possible plastic only bins to be cited within all areas, however	Yellow

	due to the constraints of space within most areas, may need to look at several central drop off points throughout the site	
Examine alternatives to plastic sharps boxes and waste medicine containers	Our current and projected usage of plastic sharps boxes are relatively low. We have very limited space within our internal waste holding areas, as the areas are not large enough to store reusable sharps bins	
Reduce and divert food waste to Anaerobic Digestion or composting initiatives - It is estimated that we would need around 20 x 120 Eurobins to capture weekly waste quantities generated. Quotes obtained from our current waste provider Veolia has the estimated increase spend of £15,000 per annum	Complete in part, exploring the introduction of food waste caddies within office areas	
Introduce “Wood only recycling” - Quotes obtained from Veolia for this provision has been estimated @ £3,000 per annum	Complete	
Remove all “take away disposable items- replace with re-useable containers - current spend on disposable has been estimated @ £11,000 per annum	Complete	
Continue to work with our waste contractors to ensure that waste is managed and disposed of at the highest level of the waste hierarchy	Complete, new waste tender in development	
Capture all paper waste enabling the Trust to be 100% paper recyclable	Complete	
Work with our colleagues within theatres – exploring improved waste segregation and recycling	Complete	
Remove all local workstation bins – replace with dedicated recycling station alternatives This encourages recycling rates as staff are required to use centrally located recycling stations as opposed to personal bins. This will be seen as Health and Wellbeing advantages, through encouraging more frequent movement away from desks. This also benefits the facilities team, via a reduction in number of bins needing service.	Complete	
Remove where possible paper-based hand towels – replace with hygienic/micro-biological hand dryers	Not complete, reverted to paper hand towels	

Membership to the Warp-It; a public sector reuse initiative that facilitates trading of surplus assets within and between organisations	Not complete, to be explored further	
Will work to reduce single use plastic items in other areas, including gloves, gowns and hygiene products	Complete, working with IPC Team	
Reduce the number of “General waste bins” within all areas – encouraging greater recycling and ownership to the producer	Complete	

14. Supply Chain and Procurement – progress & plan

The Trust works in partnership with Birmingham and Solihull Procurement Collaborative (BSOLPC) (hosted by UHB) to provide specialist supply chain and procurement services. The Managing Director is leading the ‘Supply Chain and Procurement Green Plan’ for the ICS.

BSOLPC is constantly working with suppliers to ensure the Trust/NHS meet their greener agendas and monitor their carbon omissions. The BSOL ICS is looking to introduce a system where suppliers can report their carbon omissions, enabling us to focus on omission reductions as one of our key performance indicators.

In February 2022 the Trust will be moving all of our stock management to Kings Norton through the BSOLPC; all transport of stock across BSOL is through HGV Electric vehicles. This is part of the national pilot with the Department of Transport to support HVG electricalisation.

All BSOL tenders now include a Sustainability and Social Value sections which will be 10% of the overall scoring criteria ensuring Greener Procurement solutions are an integral part of supplier selection.

The Trust continues to look at onsite storage in a move to reduce the number of weekly deliveries thereby supporting the ‘Think Birmingham - Buy Birmingham’ Social Value priorities.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Embed the NHS net zero supplier roadmap	All suppliers are required to conform to the Net Zero roadmap and all procurements (suppliers) are mandated to produce a Carbon Reduction Plan (CRP)	
Engage with suppliers to adopt the ‘evergreen sustainable suppliers assessment tool	All suppliers are required to complete the Evergreen Assessment on the ATAMIS system as part of the new procurement legislation. The team are working with all incumbent suppliers to align them with the new requirements	

Develop HVG electricalisation of fleet	The ICS is currently looking at a system wide Transport transformation strategy, including integrated route planning and systemwide transport utilisation. There is a strategy to move to a wider electrification of fleet, but this is dependent on infrastructure to support service requirements	
Removal of single use plastics	The Clinical Procurement Nurse led team are reviewing all single use plastic products to either remove or find reusable alternatives. Such as Gloves Off campaign, removal of Blue Couch roll, etc	
Move to Reuse, Remanufacture, Recycled MedTech Devices	BSOL was part of the (DHSC) Design for Life team, to shift suppliers from single use to Reuse, Remanufacture, Recycle devices. BSOL is already working with Vanguard who remanufacture devices, which are then removed from clinical waste and provide an income stream	
WARPIT reuse of equipment across BSOL	BSOL is introducing a portal “WARPIT” which allows Trusts to advertise unwanted furniture/equipment free of charge to avoid unnecessary waste costs. WARPIT will be used by procurement when requisitions for office furniture are received to check potential availability, and avoid costs of new purchases	

More sustainable procurement

The Trust alongside other NHS Trusts that form part of the Birmingham and Solihull shared Procurement Hub, has a huge amount of buying power, particularly when working together regionally, and nationally. We can therefore significantly influence improvements to farming practices as well as improving environmental outcomes and enhancing social value.

Within our hospitals, there are many elements that create a sustainable food system. We already have robust tools in place to support environmentally sustainable food in NHS hospitals such as the Hospital food review, and the Public Services (Social Value) Act [67], both of which support Part Two of the National Food Strategy. The Hospital Food Review Panel has been exploring opportunities for managing food procurement sustainably in hospitals.

They are recommending that, as part of the food standards, the BSOL shared procure hub should use Defra’s ‘A plan for public procurement: Food and catering: the balanced scorecard’ to assess our procurement and catering practices.

Public sector procurement has long recognised the need to promote value for society, environment, and the local economy and there have been previous government initiatives to encourage public sector bodies to purchase food in a sustainable way and to help local and small businesses compete for public sector contracts.

There is also growing interest in the NHS about its role as an ‘anchor institution’ with considerable awareness of the economic, environmental, social and health benefits of sustainable food procurement by public bodies.

It is anticipated that the new NHS food standards (when published) will include recommendations regarding mandatory procurement standards along with the tools to support implementation. Through making food procurement and catering more sustainable and reducing the amount of food wasted by the NHS in hospital settings.

15. Food and Nutrition – progress & plan

This section of the plan will outline ways to reduce the carbon emissions generated from the food made, processed and served within the Trust.

It will evidence key objectives which will be introduced within a five-year plan focusing on the following key goals:

Action	Progress to date	Status
Work with the Procurement Hub to ensure a more sustainable procurement	Tenders are procured in line with corporate responsibility and sustainability; weighted questions embed within each tender	
Food waste minimisation -reduction of food waste inpatient and catering retail	Introduced stringent monitoring to reduce food waste both within catering retail and in-patient wards	
Introduction of “meat free Mondays and Fish Friday” (replacing meat product offerings)	Currently not implemented, it is perceived it would have a dramatic impact on revenue sales	
Reintroduce “seasonal menus” i.e. Winter and summer menu	Currently being drafted with a plan to introduce from September 2025	
Evaluate current meal provision remove where possible processed foods	Review undertaken – the processed foods used are cooked Ham, Turkey, Corned Beef, Bacon & Breakfast Sausages	
Work towards accreditation to demonstrate that the Trust commitment to the sustainability agenda (e.g. Soil Association accreditation)	Currently not implemented due to increased costs and the possible introduction of new in-patient meals	

16. Adaptation – progress & plan

Climate Change Adaptation

Climate change is one of the biggest public health challenges we face. Extreme weather conditions such as flooding and heatwaves are becoming more frequent and more intense, and we need to adapt our environment to these changing conditions. We need to be aware of these climate changes and embed strategies into our organisation to deal with any impacts on our infrastructure, services and procurement of goods/services.

We need to invest in adaptation and mitigation strategies/measures to minimise the effects of Climate Change. We have developed a Climate Change Risk Assessment (CCRA) to highlight any risks to clinical service continuity and resilience of our supply. This will ensure our adaptation and contingency strategies work together as one. We will continue to raise awareness and understanding of the causes and impacts of climate change amongst our staff and service users.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Develop climate change risk assessment	Business continuity plans developed, risk assessment are part of BPC's	Green
Mitigate the risks of climate change	Climate change risks are regularly reviewed; some mitigate plans in place	Yellow
Develop adverse weather plan	Adverse weather plan in circulation	Green
Monitor adverse weather events and update current actions/plans	Adverse weather events monitored, and any lesson learned captured, and plans updated accordingly	Green

Capital Design Adaptation

In the development and design of our Estate we need to embed sustainability; we will use smart design and emerging technologies to support our improvement programmes.

The aim is to take a 'Whole Life Cycle Costing' approach to our projects by considering sustainability in design, construction, commissioning, operation and decommissioning to help futureproof the Trust.

The aim to reduce the environmental impact of our buildings by developing sustainability guidelines for all our major capital developments. We will take a 'Design for Performance' approach considering the BSRIA soft landings framework and recognised methodologies such as BREEAM selecting the most appropriate measures to maximise the benefits.

We will endeavour to meet the Passivhaus Standard and BREEAM Outstanding status for new buildings. We will prioritise access to natural light, ventilation, greenspace and active travel infrastructure in the development of our Estate. We will weight 'Social Values Outcomes' when procuring new services in the design and construction of new space.

We will work with and engage with industry professionals to try and ensure all our major projects are 'Net Zero in Operation'. We will include an assessment of the energy / carbon

performance of our buildings in-use to ensure the parameters set in the design process have been achieved. We will use Sustainability Impact Assessments (SIA) as part of our Business Development Investment approval procedure.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Review emerging technologies and SMART building design	The ROH use approved architects and engineers to design their buildings, these use the most up-to-date thinking	
Consider whole life cycle costing approach to all new projects	Considered for all new build projects	
Consider sustainability guidelines and take a 'Design for Performance' approach	Considered for all new build projects	
Consider Passivhaus standards and strive for BREEAM outstanding status	Considered for all new build projects	
Strive for 'Net Zero in Operation'	Considered for all new build projects	

Service Design Adaptation

The ROH has already undertaken service adaptations to address some of its clinical environmental issues such as the re-purposing of Block 37. The functional change to an outpatient type activity has reduced the operation of this building from 24 hours a day to 12 hours thereby reducing its impact on its service providers.

We have closed old Ward 10 converting it for on-call rooms and administrative functions. Ward 12, in parts, does not have a 'controlled air' environment. Currently the service users experience high temperatures in the summer months, and this is likely to increase further with climate change. Strategic plans are being developed to provide additional ward capacity, this will enable this ward to be relocated in future years.

The Hydrotherapy service is in a prime location off the main hospital street. The potential relocation of this service to a purpose built, energy efficient, stand-alone building on the site would make noticeable improvements for its service users and release the land area for future clinical development.

The Theatre service operates from a collection of buildings, some buildings are of modern design/construction, and other buildings/theatres need regular improvement. The High Dependency Unit is co-located within the Theatre complex; strategic plans are being developed to relocate our HDU service to enable a phased replacement of our aging theatre stock. The service adaptation will enable well designed, energy efficient replacement theatres to be delivered in a phased manner.

The adaptation of patterns of working is likely to result in changes to the way we use our offices/buildings, the development of 'Hot Desks' and 'Bookable Space' will assist in any future 'Agile Working' strategies.

Building Adaptation

The evolving 'Estates Strategic Development Plan' has looked at future site adaptations in the form of demolition of our older building stock. The buildings under consideration are:

- Block 02 – this building currently provides accommodation for our Human Resources Department, the building was built in circa 1925
- Block 03 – this building provides Body Storage, the building was built in circa 1925
- Block 14 – this building provides accommodation for our Hydrotherapy Department, the building was built in 1979
- Block 21 – this building provides Administration Accommodation for our Spinal Team, the building was built in 1935
- Block 28 – this building provides Theatres 1, 2 & 4, the original building dating back to circa 1925
- Block 30 – this building provides accommodation for our High Dependency Unit, the building was built in 1938
- Block 46 – this building provides our Therapy Gymnasium Service, the building was built in 1930
- Block 72 – this building provides our Theatre 9 & 10 Facilities, built in 2004 under a modular design, demolition would pave the way for future Theatre expansion

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Review of Block 02 – Human Resources Department	Linked to strategic estates review	
Review of Block 03 – decommissioned Body Store	Awaiting BCC approval to demolish	
Review Block 14 - Hydrotherapy Department	Linked to strategic estates review	
Review of Block 21 – Spinal Administration	Linked to strategic estates review	
Review Block 28 – Theatres 1, 2 & 4	Linked to strategic estates review	
Review Block 30 – High Dependency Unit	Linked to strategic estates review	
Review Block 46 – decommissioned Therapy Gymnasium Service	Awaiting BCC approval to demolish	
Review Block 72 – Theatre 9 & 10	Linked to strategic estates review	

Green Spaces & Bio-diversity Adaptation

Nurturing and improving our ‘Greenspace’ has benefits for Health & Wellbeing, leads to improved air quality, noise reduction and supports Biodiversity. We will maximise the quality and benefits of our greenspace, reduce biodiversity loss by protecting and enhancing our natural assets.

The ROH Trust has a long history in providing well maintained grounds & gardens for its staff and service users. The ‘Woodlands Site’ has a varied collection of trees which support the control of greenhouse gases. The Trust continues to maintain its green canopies, invest in the planting of new trees and is proud of its ‘Green Apple’ award status.

We will enhance our ‘Health & Wellbeing’ by maximising the quality and resilience of our ‘Greenspace’ to help mitigate the effects of climate change. We will work with internal and external stakeholders to ensure we have a Climate Change Adaptation Plan.

We will raise awareness of the benefits of the natural environment, encourage our staff and volunteers to get involved in gardening and food growing schemes which have the potential to incorporate the food products into our catering services.

We will continue to plant trees and shrubs to enhance our environment. We will create a ‘Herb Garden’ in the central wooded area of the site to provide sensory stimulation for our service users and a food source for our pollinators. The development of ‘Green Roofs’ and ‘Living Walls’ will be explored to further enhance the eco-system.

The ROH Trust will install ‘Bird Boxes’ around its site in its tree canopies, this will encourage birds to nest and help with the local ecology.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Develop a climate adaptation plan	To be developed	
Maintain and develop our woodland area	The Woodland site is being developed and maintained	
Develop a garden of herbs	Herb garden developed	
Install bird boxes	Bird Boxes installed	
Install bug houses	Bug houses installed	
Develop green roofs and living walls	To be reviewed/developed	

17. **Communications – progress & plan**

The communications team will support the delivery and promotion of the Trust’s strategy work with staff to understand the work they are doing to reduce carbon emissions and help the Trust to reach the targets that have been set.

The team will assist in the delivery of a net zero strategy, communicating to staff on how they can become greener at home and at work. Provide positive publicity to ensure staff, patients, visitors and external stakeholders know the Trust are working together to create a healthier, more sustainable environment.

The specific deliverables for this workstream are as follows:

Action	Progress to date	Status
Provide communication channels to help reduce our carbon emissions	<p>Reduced the costs associated with printing over 24 months and continues to develop a range of digital communication channels, including:</p> <ul style="list-style-type: none"> • The ROH Hub (intranet) • Team Brief (delivered virtually) • Loop (communications for non-desk-based staff) • Social media <p>Patient information hosted on the website can be accessed digitally</p>	

<p>Communicate the benefits of carbon reduction to our staff, patients and visitors</p>	<p>The Communications Team has delivered internal and external communications which promote the Trust Green Plan and celebrates initiatives associated with it. This includes:</p> <p>Internal comms examples:</p> <ul style="list-style-type: none"> • General and Clinical Waste Management <p>External comms and PR examples:</p> <ul style="list-style-type: none"> • SBRI Healthcare awards £1 Million to pioneering innovations to support delivery of a net zero NHS 	
<p>Communicate how reduced emissions improve their lives and make the environment more sustainable</p>	<p>The Trust internal communications have featured opportunities for staff to understand how reduced emissions improve health and sustainability:</p> <p>Examples:</p> <ul style="list-style-type: none"> • Vivup - Cycle to Work Scheme <p>Transport for WM, Cycle and Scoot to promote sustainable travel</p>	
<p>Communicate on the Trust's progress towards net zero</p>	<p>The Communications Team have shared internal updates which relate to Net Zero progress. They are published via the Waste Management page.</p>	
<p>Develop marketing material across the Trust</p>	<p>The Communications Team have developed a range of marketing material promoting initiatives associated with the green plan (e.g., cycling schemes, walking schemes).</p>	
<p>Develop net zero on our ROH website</p>	<p>The ROH website features our net zero ambition and Trust Green Plan. It is accessible here: ROH Green Plan</p>	
<p>Communicate with schools and external partnerships to promote net zero</p>	<p>The Communication Team are planning green-specific communication initiatives with schools and other external partners. The Communication Team are involved in developing the prevention and health promotion agenda for the Trust and plan to integrate net zero messaging into this approach alongside our prevention-focussed messaging.</p>	

18. Conclusions and Recommendations

The NHS is currently developing a pipeline of revenue and carbon saving NHS projects for 2025/26 and beyond, this will ensure that the NHS is optimally placed to secure any funding made available across government, as well as to bid for any future capital funding where measures have positive returns on investment.

The ROH Green Plan sets out the Trusts commitment to working towards net zero by reducing harmful emissions, improving efficiency, developing new ways of working through the transformation of the delivery of services and its estate. It clearly articulates the work that has been undertaken to date and sets out an ambitious change programme for the future.

This plan sets out how, the Royal Orthopaedic Hospital will play its part in contributing towards the NHS Net Zero plan. The work will require ongoing support of the Trust Board, the senior leadership team, the staff, patients and visitors who attend the site, alongside capital investment and behavioural change to enable long term sustainable change.

The ROH Green Board will continue to monitor progress and working towards net zero. The ten workstream plans will be reviewed regularly and will be upwardly reported to the Trust Board on an annual basis. The Finance and Performance Committee will be the sub-committee of the Board who will monitor progress against the plan.