

The Green Plan

Delivering Sustainable Healthcare 2021 to 2025

22th December 2021
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Executive Summary

This report sets out how the James Paget University Hospitals NHS Trust (the Trust) will support the NHS ambition to deliver a 'net zero' National Health Service.

Two clear and feasible targets are established for the NHS net zero commitment, based on the scale of the challenge posed by climate change, current knowledge, and the interventions and assumptions that underpin this analysis:

- for the emissions we control directly (the NHS Carbon Footprint), net zero by 2040, with an ambition to reach an 80% reduction by 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 2039.

Included within this report is an analysis of the Trust's current position which demonstrates significant reductions in our CO2 emissions over the past 10 years. We perform favorably when reviewing benchmarking data from equivalent Acute hospitals within our region. However, further work is required to fully assess our data analytics and to agree on the future methodology for determining our supply chain and beyond supply chain emissions.

Foreword

“The environment in which we live directly affects our health, and a healthier environment will benefit everybody.

“At the James Paget, we are fully committed to reducing our impact on the environment whilst providing high quality health and care to our local communities. We want to work with all our people across the hospital to create a modern, sustainable, safe and accessible workplace that encourages learning about and responsibility for the green agenda.

“Our hospital, along with society as a whole, has a responsibility to help create a greener future for generations to come. We will work with our partners across Norfolk and Waveney to achieve the ambitious strategy of delivering sustainable healthcare across the James Paget University Hospital and our system as a whole. We welcome your support in our journey going forwards.”

Anna Davidson
Chair



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About the James Paget

The James Paget University Hospitals NHS Foundation Trust (JPUH) provides the best possible care to a population of 250,000 residents across Great Yarmouth, Lowestoft and Waveney, as well as to the many visitors who come to this part of East Anglia. Our main site in Gorleston is supported by the Newberry Clinic and other outreach clinics in the local area.

Our vision is to be outstanding in everything we do. This is supported by our priority always being the care we provide to our patients and how we look after our staff.

Named after the famed surgeon, the JPUH officially opened on 21st July 1982. We were established as a third wave NHS Trust in 1st April 1993 and became a Foundation Trust on the 1st August 2006. This meant we were more able to develop services to meet the needs of our local community with local people and staff directly involved in decisions about their hospitals, and influence the future .

We provide a full range of general acute services plus a number of specialised services; including a Hyperbaric Chamber for ventilating and monitoring critically ill patients whilst they are receiving hyperbaric oxygen therapy. We work with a number of local primary care colleagues, community services and other acute trusts, to ensure that patients receive the best care in the right place - and are fully involved in our local integrated care partnership in Norfolk and Waveney

The Trust has c.500 inpatient beds located at the James Paget University Hospital. These are a mix of critical, intensive and high dependency care, general surgery and medicine, maternity, paediatrics and neonatal, and escalation beds used when we are experiencing high demand and need to deal with an increased number of patients needing our care.

We employ over 3,000 staff, both part and full time, making us the largest local employer in the area. Our staff act as ambassadors for the Trust and are guided by our Vision, Values and Behaviours.

Our Approach

This ambitious Green Plan sets out our vision, strategy, and objectives for delivering sustainable healthcare across Great Yarmouth and Waveney. It also links into the wider goals of the Norfolk and Waveney Health and Care Partnership.

Our Green Plan demonstrates how the Trust will help to reduce its carbon emissions in line with the national objective of the NHS to tackle climate change by reducing emissions to 'net zero'. In doing so, we aim to be part of the world's first 'net zero' national health service.

The NHS net zero commitment

Two clear and feasible targets are established for the NHS net zero commitment, based on the scale of the challenge posed by climate change, current knowledge, and the interventions and assumptions that underpin this analysis:

- for the emissions we control directly (the NHS Carbon Footprint), net zero by 2040, with an ambition to reach an 80% reduction by 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 2039.

Working Together

Meeting the commitment for net zero carbon will only be achieved if every part of the NHS works together. Whether it is a physiotherapist keeping their patients active with sustainable mobility aids, a mental health nurse providing high quality care via telemedicine, or a hospital chef sourcing their ingredients from the local community, we all have a role in delivering a net zero NHS, providing health and high quality care for all, now and for future generations.

Early steps that are being taken to decarbonize the NHS:

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 New Hospital Programme with a new Net Zero Carbon Hospital Standard.
6. **Our heating and lighting:** By completing a £50m 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. Decisions for this role will be formalised early 2022 by our sustainability committee.

Progress to Date

Our direct Carbon emissions have reduced by 25% over the past 10 years.

25%

We have completed a wide range of schemes to reduce waste and improve efficiency:

- PV Solar
- Combined Heat and Power
- Building Management Systems
- Heat Recovery
- LED Lighting
- Thermal Insulation
- Recycling

100%

100% of our electricity is obtained from green energy sources.

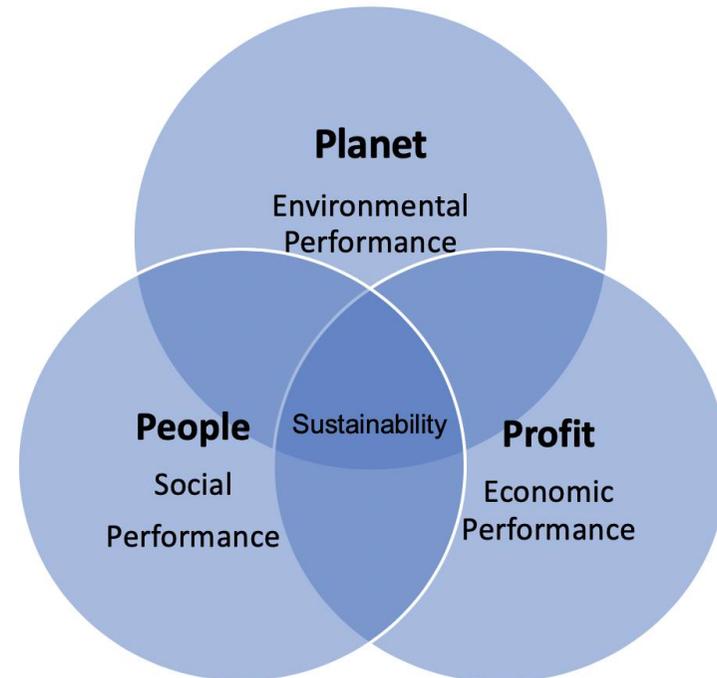
On-site electricity is generated from a combination of PV Solar array and CHP. While imported electricity is backed by UK REGOs or European GoOs, from a blend of sources including hydro, wind, solar, biomass and landfill gas.

Context

A sustainable health and care system delivers high quality healthcare within the available social, economic and environmental resources. It provides added value for taxpayers and improves public health within the context of diminishing financial and natural resources.

We cannot change the past, but we have a moral and ethical responsibility to leave behind a world that is not polluted or depleted of essential resources for future generations.

Maintaining the right balance of social, economic and environment is the key to delivering long term sustainability as shown below.



The Triple Bottom Line of Sustainability (Elkington, 2004)

National New Hospital Programme

The James Paget Hospital is fortunate to be part of the government's New Hospital Programme. This gives the Trust a unique opportunity to replace its aging infrastructure with modern and efficient healthcare buildings which support new patient pathways and models of care.

Details of the New Hospital Program are outlined below:

1. Health is the nation's biggest asset and the NHS is the Government's top domestic priority. We have already committed to increasing the NHS's day-to-day spending by £33.9 billion by 2023-24, to back the NHS's own Long Term Plan (LTP). With the single biggest cash increase made in the organisation's history, the NHS now has unprecedented certainty to plan for the next decade, ensuring that patients will be supported with world-class care at every stage of their life.
2. The NHS and the healthcare services it provides to the nation are underpinned by capital funding for infrastructure comprising of buildings, including hospitals, equipment, ambulances, frontline technology as well as technological advances in areas such as Artificial Intelligence (AI) and genomics.
3. Capital spend on NHS infrastructure is essential to the long-term sustainability of the NHS's ability to meet healthcare needs, unlocking efficiencies and helping manage demand. It is also fundamental to high-quality patient care, from well-designed facilities that promote quicker recovery to staff being better able to care for patients using the equipment and technology that they need. The NHS is also supported by research and public health facilities and networks, together with adapted or specialised housing that reduces or delays the need for healthcare.
4. The Government is publishing the NHP - ahead of the capital review, to set out the Government's strategy.

5. The NHP will deliver a long-term, rolling five-year programme of investment in health infrastructure, including capital to build new hospitals, modernise our primary care estate, invest in new diagnostics and technology, and help eradicate critical safety issues in the NHS estate.
6. At the centre of this will be a new hospital building programme, to ensure the NHS' hospital estate supports the provision of world-class healthcare services.
7. The Government has announced six new large hospital builds that are receiving funding to go ahead now (aiming to deliver by 2025), and 21 more schemes that have the green light to go to the next stage of developing their plans (to be ready to deliver between 2025-2030). In total, this first tranche involves more than 40 hospital building projects. There will be opportunities for other schemes to bid for funding in the future.
8. The NHP is not just about capital to build new hospitals – it is also about capital to modernise mental health facilities, improve primary care and build up our infrastructure in interconnected areas such as public health and social care – all of which, together, ensure this country has the world class facilities that it needs.
9. The Government recognised the need for further capital investment in the NHS by announcing over Summer 2019 a £1.8 billion increase to NHS capital spending over five years starting this year (2019/20), £250m for AI over the next three years, £200m for new diagnostic screening equipment, and confirming that the Department of Health and Social Care will receive a new multi-year capital settlement at the next capital review. This is all additional to the £3.9bn extra capital funding announced at the 2017 Spring and Autumn Budgets.

Our New Hospital

New Hospital Programme

Plans are being developed to build a Health and Social Care Campus to replace the existing James Paget Hospital site. In doing so, we aim to improve the quality of service, increase capacity and help the Trust deliver a truly integrated approach to health and social care which supports our objectives for sustainability and net zero carbon.

Green Space

The landscape and public spaces in and around the hospital campus will play a crucial role in mitigating the impacts of climate change, providing new habitats for wildlife, and creating a healthier and more pleasant environment. Ultimately, the hospital campus should nurture and contribute to the natural systems that sustain us all, not deplete them.

Accommodation

We aim to build new homes for up to 300 key workers, situated within walking distance of the new hospital to create an integrated campus that helps staff feel part of the local community.

Net Zero Carbon

We will use Modern Methods of Construction (MMC) and the Building Research Establishment Environmental Assessment Method (BREEAM) to help us offset and reduce carbon emissions. The ability to build off-site using standardised designs will help reduce travel times and carbon transport emissions. We also aim to heat and power the new hospital using new technology avoiding the use of fossil-based fuels; building upon our current journey towards achieving net zero carbon.

Sustainable Travel

We work in collaboration with a wide range of organisations to develop a combined approach for sustainable travel projects. Firstly, encouraging staff to walk or cycle to work by providing secure cycle storage and shower facilities. Secondly, encouraging staff and visitors to use public transport by maintaining good transport links with local bus providers. And thirdly, by giving staff access to a salary sacrifice scheme that offers vehicle leases for fully electric or hybrid vehicles at affordable prices. The use of electric vehicles is to be further supported by the installation of onsite/local charging points in 2021/22.

Our Approach to Sustainability

Environmental

Achieving environmental growth by advancing environmental efficiency across our estate, implementing effective resource usage.

Care

Supporting the health and wellbeing of stakeholders by providing healthy spaces, excellent care, and empowering healthy choices.

Responsibility

Future-proofing by increasing the resilience of our organisation and assets to future demands and pressures.

People

Enhancing social value, increasing our role, and influencing the wider community by thinking and working beyond the boundaries of the James Paget Hospital.

These key topics form the core in the delivery of our strategy. They are implemented within the ten aspects of Sustainable Development Assessment Tool (SDAT).

Corporate Approach	Capital Projects	Travel & Logistics	Adaptation	Asset Management & Utilities
Greenspace & Biodiversity	Carbon / GHGs	Our People	Sustainable Use of Resources	Sustainable Care Models

Drivers for Change

Legislative

- Civil Contingencies Act (2004)
- Climate Change Act (2008)
- Environmental Protection Act (1990)
- Public Services Social Value Act (2012)
- European Emissions Trading Scheme (2005)
- The Waste Regulations (2011)

International and European Guidance

- EU Waste Directive (2008)
- United Nations Sustainable Development Goals
- Intergovernmental Panel on Climate Change Global Warming of 1.5°C Report (2018)
- World Health Organisation: Environmentally Sustainable Health Systems in Europe (2017)
- World Health Organisation: European Policy for Health and Wellbeing

Healthcare specific guidance, strategies and policies

- Delivering a 'Net Zero' National Health Service (2020)
- Adaptation Report for the Healthcare System (2015)
- The Carter Review; Operational productivity and performance in English NHS acute hospitals (2016)
- NICE guidance – physical activity, walking and cycling (2012)
- Health Technical Memoranda and Health Building Notes
- The Naylor Review (2017)
- HM Treasury's Sustainability Reporting Guidance (2019)
- Public Health Outcomes Framework (2013)
- The Marmot Review (2010)
- NHS Long-Term Plan (2019)

UK Strategy and Guidance

- DEFRA The Economics of Climate Resilience (2012)
- The Economics of Climate Change 2006)
- HPA Health Effects of Climate Change (2012)
- National Adaptation Programme: Making The Country Resilient To The Changing Climate (2013)
- DEFRA A Green Future: Our 25 Year Plan to Improve the Environment (2018)
- The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007)
- Building Regulations
- Sustainable procurement: the Government Buying Standards (2015)
- The National Planning Policy Framework (2019)

Clinical Activity

Clinical activity increased by 4.4% over the 10 year period from 1st April 2010 to 31st March 2020. Over the same period there was a significant increase in the number of Day Case procedures and a reduction in Elective Inpatient procedures.

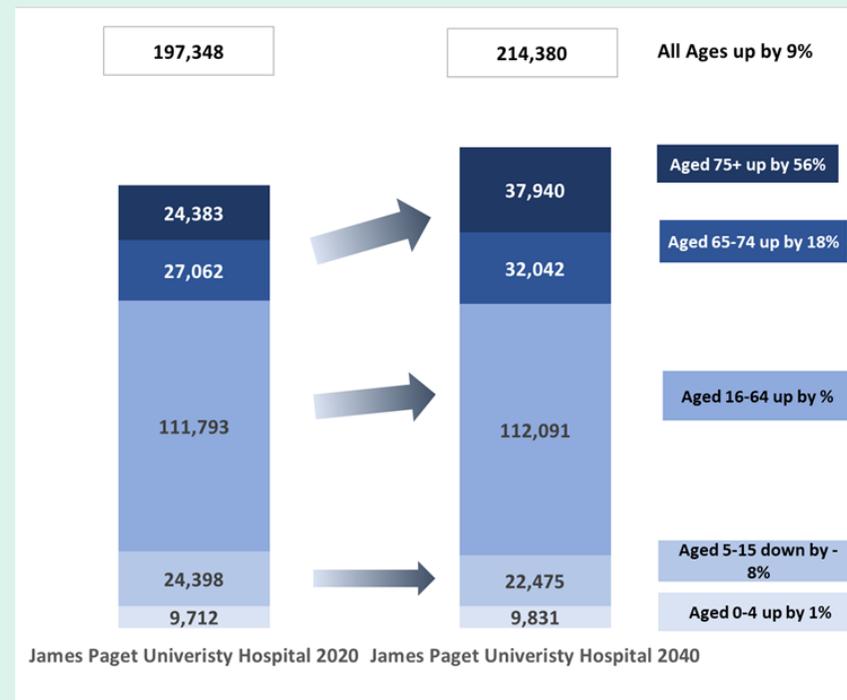
The Emergency floor has also seen a steep rise in clinical activity with a greater number of patients being treated in A&E.

Clinical Activity	Percentage Change from 2010 to 2019	Trend
Elective Inpatients	-16.90%	↓
Day Cases	56.01%	↑
Non-Elective	27.17%	↑
Outpatients	-5.21%	↓
A&E	33.33%	↑

Our population is also changing. By 2040, the population of Norfolk and Waveney is expected to have increased by over 110,000 people with the older age groups growing faster than younger age groups. The increased demand for healthcare services will present further challenges during our journey to net zero carbon.

Future Demand

Analysis of data for the catchment area of Great Yarmouth and Waveney indicates that hospital admissions are expected to rise by 9% in the next 20 years.



Public Health England, 2021. *Norfolk and Waveney projections.*

Clinical Activity	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Elective Inpatients	4,871	4,906	5,248	4,914	5,097	5,364	5,189	4,022	4,048	3,287
Day Cases	20,872	24,197	25,768	27,440	29,257	30,538	31,599	31,342	32,562	31,539
Non-Elective	23,178	27,116	28,797	25,148	25,329	24,501	25,894	27,525	29,476	29,522
Outpatients	232,106	229,332	222,195	213,861	218,628	215,408	210,920	204,515	220,014	210,712
A&E	60,651	67,130	67,431	67,728	70,174	71,548	74,820	77,678	80,866	81,728

Carbon Footprint

The carbon footprint is a measurement of the total greenhouse gas emissions in tonnes of carbon dioxide equivalent (CO₂e).

The benefit of using CO₂e for sustainability reporting is that it allows the comparison of different greenhouse gases on a like-for-like basis relative to one unit of CO₂. These emissions are calculated from primary and secondary energy sources.

Direct energy consumption is monitored at all JPUH sites, and conversion factors allow the calculation of carbon emissions in CO₂e.

The Greenhouse Gas Protocol

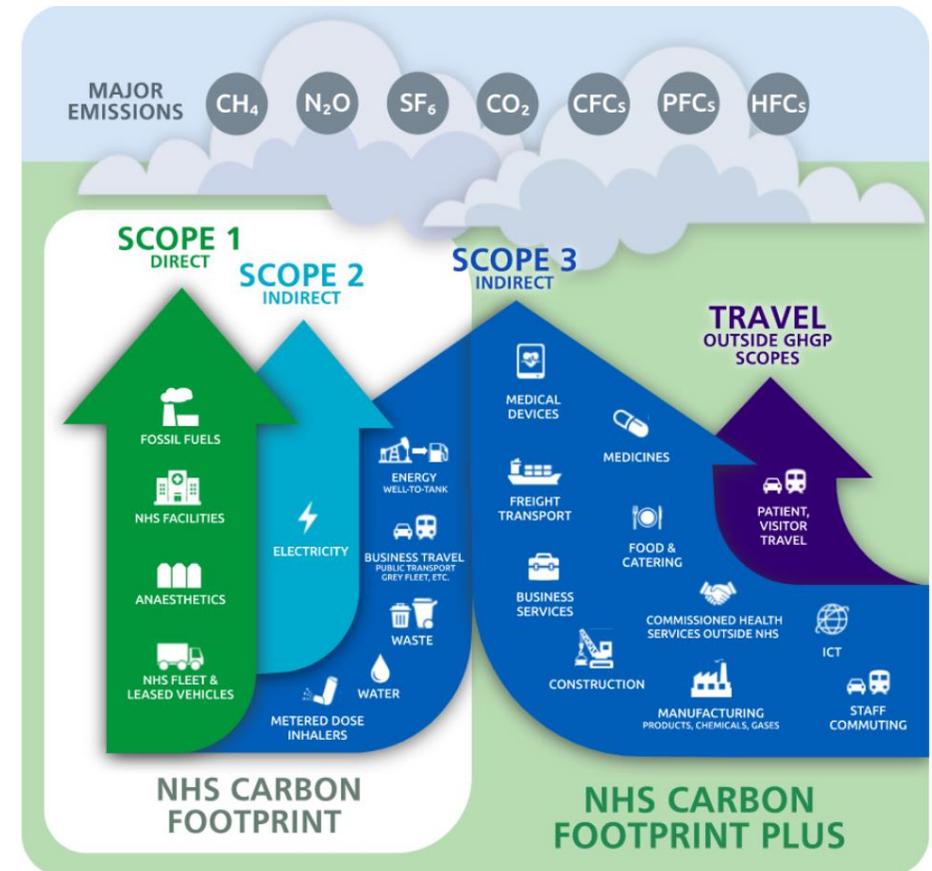
The Greenhouse Gas Protocol (GHGP) provides an international framework for businesses, governments, and other entities to measure and report their greenhouse gas emissions in ways that support their missions and goals.

The GHGP categorises carbon emissions into three groups or 'Scopes':

- **Scope 1:** Direct emissions from owned or directly controlled sources, on site
- **Scope 2:** Indirect emissions from the generation of purchased energy, mostly electricity
- **Scope 3:** All other indirect emissions that occur in producing and transporting goods and services, including the full supply chain.

NHS Carbon Footprint Plus

The NHS has agreed to work towards net zero for an NHS Carbon Footprint Plus that includes all three of the scopes above, as well as the emissions from patient and visitor travel to and from NHS services and medicines used within the home.



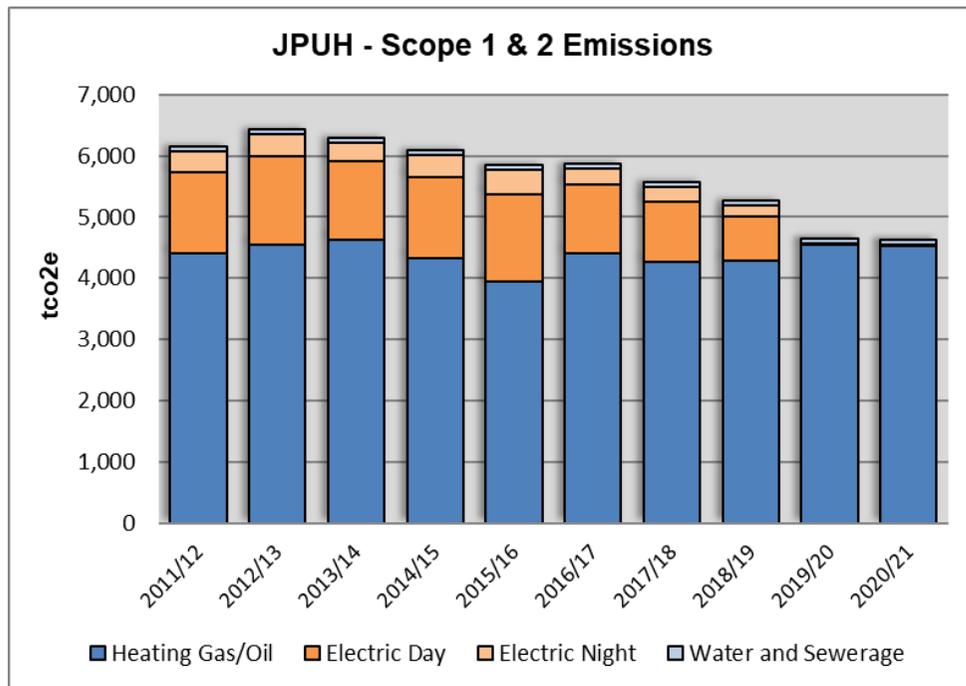
NHS, 2021. *Delivering a 'Net Zero' National Health Service*. [online] NHS. Available at: <https://www.england.nhs.uk/greenernhs/publication/delivering-a-net-zero-national-health-service/>

The gathering of information to calculate Scope 3 emissions and those emissions outside the GHGP scopes, is complex due to a reliance on third-party data. However, despite the many challenges we are committed to including these emissions within our future reporting strategy.

Reducing Emissions

The JPUH strives to improve its sustainability credentials and reduce its impact on the environment. In 2007, the Trust established a baseline for its CO2 emissions and initiated a plan to enable it to reduce its carbon footprint.

Over the past 10-years, decarbonisation has been a major lever in the Trust's approach to climate change. A programme of decarbonisation projects has reduced 1 and 2 emissions (i.e. emission from the consumption of natural gas, oil, electricity, and water) from 6,146 tCO2e to 4,626 tCO2e. This reduction in emissions has been delivered despite a significant rise in hospital attendances and a general increase in business activity.

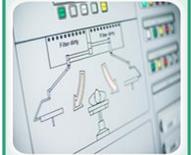


Scope 1 & 2 CO2 Emissions. Source: Trust data 2020/21

Key Performance Areas

Reducing our use of fossil fuels

- Using Combined Heat and Power plant to produce 'green' heat and electricity
- Generating 'green' electricity locally with our onsite Photovoltaic Solar Farm
- Installing efficient Theatre ventilation systems which recover heat from extract air
- Utilising data analytics to control plant and equipment
- Using low energy computers.



Promoting Sustainable Procurement

- Purchasing goods and services from local suppliers
- Buying food from local sources and cooking meals locally within our hospital
- Designing and constructing buildings to the latest BREEAM standards for sustainability



Promoting Sustainable Travel & Transport

- Promoting walking and cycling to work via the hospitals Health and Wellbeing group
- Providing bicycle storage facilities for staff and visitors
- Discouraging unnecessary vehicle use by charging for car parking
- Providing low emission and electric cars within the staff car pool
- Promoting our electric vehicles for all Trust lease cars



Reducing Waste

- Ensuring equipment is well maintained and repaired rather than being replaced.
- Reducing printing by the use of electronic documents and tablets etc.
- Ethical disposal of redundant medical equipment via auction and charities
- Recycling confidential waste paper, cardboard, batteries, printer Cartridges, etc.
- Recycling cooking oil and food waste

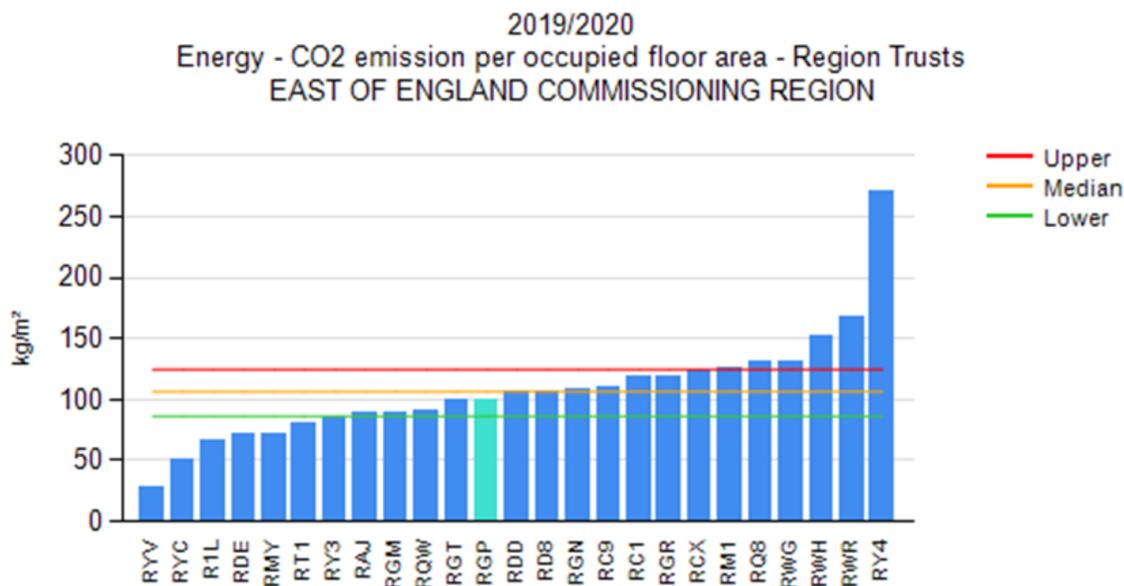


Wider Comparison

The Trust participates in the annual NHS Estates Return Information Collection (ERIC). The data from each healthcare organization is captured at a national level and is evaluated by the Department of Health and Social Care (DHSC).

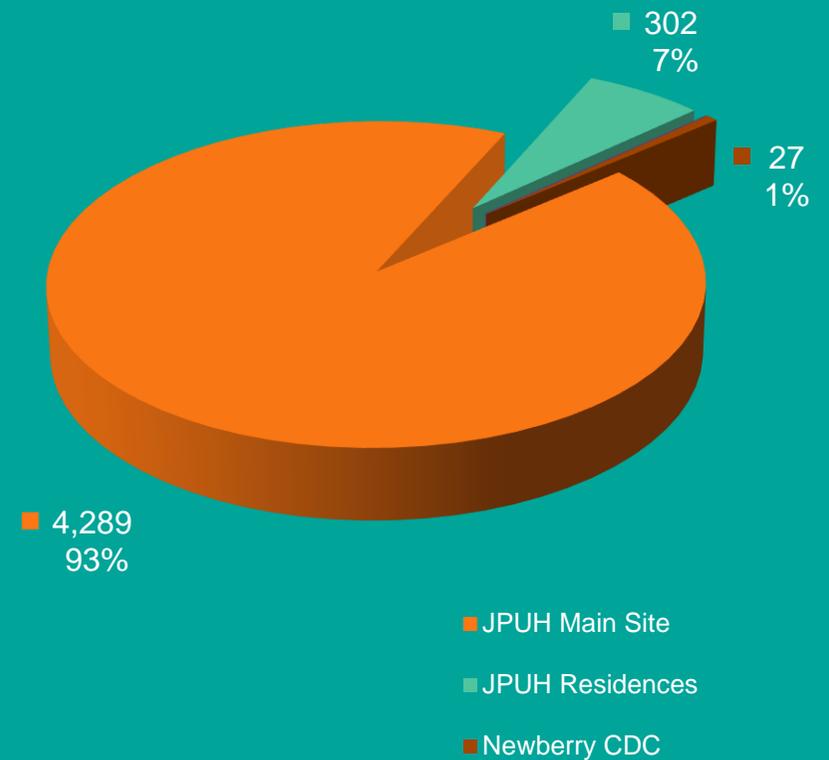
ERIC returns are formally “signed off” by the Chief Financial Officer (CFO) of the organisation and data is evaluated during assessments by the JPUH’s regulators the Care Quality Commission (CQC). In 2018, the CQC use of resources assessment defined “The NHS foundation trust is to be commended for its positive engagement in the ‘green agenda’ and its sourcing of power through its solar initiatives”.

The graph below demonstrates that the JPUH compares favourably with its peers when evaluating CO2 emissions per occupied floor area.



CO2 Emissions per Occupies Floor Area. Source: ERIC data 2019/20

Emissions per site tCO2e

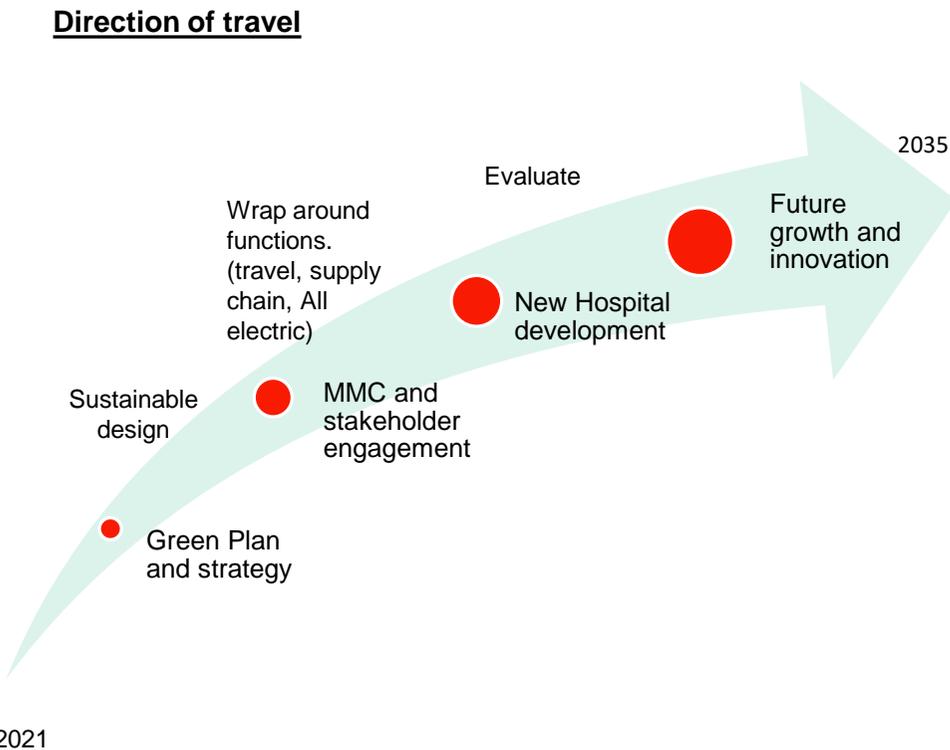


The above chart demonstrates the scope 1 and 2 emissions associated with each of the Trust sites.

Key Principles

Our core path to a greener future is via consultation with our clinical, and corporate workforce, as well as wider stakeholders.

We will ensure that the full environmental impact is considered within all business cases as recommended by HM Treasury in the “Green Book” guidance.



Sustainable Development Goals

We have created our strategy alongside the UN Sustainable Development Goals (SDGs). These are a set of seventeen global ambitions and aims focused on ensuring a more eco and socially friendly future. They were agreed upon by world leaders in 2015 and stand to fight the top issues faced in today’s society. Included in this report is how the JPUH will contribute towards these goals as well as how they will integrate with the Sustainability Development Assessment Tool (SDAT) model and Trust strategy.



SDGS 2021. *THE 17 GOALS Sustainable Development Goals.* [online] Available at: <https://sdgs.un.org/goals>

The JPUH and the UN SDGs

Sustainable Development Goal	Trust Contribution
<p>Goal 1: End poverty in all its forms everywhere</p> 	<ul style="list-style-type: none"> Ensure adequate controls are established to ensure our workforce is paid in accordance with national standards. Take all necessary precautions to ensure poor and vulnerable people are not exploited by our supply chain during our business activities and during the construction of the new health and social care campus. Source products that have not come from child labour.
<p>Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p> 	<ul style="list-style-type: none"> Work closely with other Health and Social Care Partners, Charities and Voluntary Organisations to promote healthy living. This includes supporting local food banks and providing training (i.e. cooking meals from fresh ingredients) for the local community. Purchase locally grown fresh produce and cook fresh meals at the hospital site.
<p>Goal 3: Ensure healthy lives and promote well-being for all at all ages</p> 	<ul style="list-style-type: none"> Promote healthy living activities for staff, patients and the local community. Include facilities to promote healthy living in the design of the new health and social care campus. This could include outside fitness areas and green recreational spaces for use by staff, patients and the public.

Sustainable Development Goal	Trust Contribution
<p>Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p> 	<ul style="list-style-type: none"> Support and promote lifelong training for all staff such as the delivery of Level 1 and 2 functional skills in Mathematics and English. Offer full support for the National Apprenticeship Programme. Provide employment opportunities for disadvantaged people (i.e. via The Princes Trust and Project Search schemes) Ingrain equitable opportunities and inclusivity across the Trust through initiatives that support positive cultures and behaviours.
<p>Goal 5: Achieve gender equality for all</p> 	<ul style="list-style-type: none"> Ensure employees, potential employees and users of its services are treated fairly and responsibly irrespective of their sex, age, gender reassignment, pregnancy, marriage or civil partnership status, sexual orientation, religion or belief, disability or race.
<p>Goal 6: Ensure availability and sustainable management of water and sanitation for all</p> 	<ul style="list-style-type: none"> Ensure water systems and equipment are effectively maintained in a safe and efficient way to reduce any losses in the system. Include “Greywater” recycling systems in the design of the new health and social care campus.

Sustainable Development Goal	Trust Contribution
<p>Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all</p> 	<ul style="list-style-type: none"> Promote the transition to renewable energy sources such as PV Solar, Combine Heat and Power. Import “green” electricity from the grid via the ‘Renewable Energy Guarantees Origin (REGO)’ scheme. Support the transition from fossil fuel to electric vehicles.
<p>Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p> 	<ul style="list-style-type: none"> Where reasonably practicable promote the use of local companies and the local community in the staffing for future construction projects and the long-term healthcare workforce. Ensure all staff are treated fairly in accordance with their terms and conditions of service. Ensure that zero-hours contracts are appropriately used in accordance with government guidance and best practice.
<p>Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p> 	<ul style="list-style-type: none"> Ensure low carbon technology is adopted in the design, construction, operation and use of the all buildings. Become an innovation hub and develop our on site education centre to aid in the learning around climate change and the medical field. Lead industry quality improvement, research and evaluation, therefore, fostering new knowledge and championing education and training in sustainable health.

Sustainable Development Goal	Trust Contribution
<p>Goal 10: Reduce inequality within and among countries</p> 	<ul style="list-style-type: none"> Empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. Measure awareness though annual surveys.
<p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable</p> 	<ul style="list-style-type: none"> Ensure access adequate, safe and affordable housing is provided for our health and social care workers. Establish a safe and healthy estate that has a focus on cultivating environmental factors of health such as air quality, food, active travel, green space, interactions, and biodiversity.
<p>Goal 12: Ensure sustainable consumption and production patterns</p> 	<ul style="list-style-type: none"> Decrease waste through prevention, reduction, recycling and reuse. Guarantee sustainable management and effectual use of raw materials and natural resources. Develop and embed efficient practices, innovation research and evaluations, new technologies and staff awareness. Undertake audits and assessments to establish the Trusts Scope 3 emissions. Include sustainability is reported within the Trusts Annual Report.

Sustainable Development Goal	Trust Contribution
<p>Goal 13: Take urgent action to combat climate change and its impacts</p> 	<ul style="list-style-type: none"> Substantially reduce waste generation through prevention, reduction, recycling and reuse. Effectively implement a culture of climate change-related planning and management within the JPUH. Adopt and implement local disaster risk reduction strategies. Improve strategic approach and the longevity of climate action through evaluation that can be shared both internally and externally.
<p>Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p> 	<ul style="list-style-type: none"> Prevent and significantly reduce marine pollution of all kinds (i.e. reducing the use of bleach agents in cleaning). Cease the use of macerators which are used to dispose of food and human waste which is pumped into the ocean via the drainage system.
<p>Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p> 	<ul style="list-style-type: none"> Implement sustainable land management around all health and social care buildings. Ensure the conservation of ecosystems, including their biodiversity. Reduce the degradation of natural wildlife habitats by encouraging the creation of 'wild areas' within the design of the new Health and Social Care Campus which promotes diverse flora and fauna to reduce the extinction of threatened species.

Sustainable Development Goal	Trust Contribution
<p>Goal 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions.</p> 	<ul style="list-style-type: none"> Maintain fully accountable and transparent business operations. Ensure clear governance and procurement controls are maintained to reduce the risks associated with corruption and bribery.
<p>Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development</p> 	<ul style="list-style-type: none"> Work with partner organisations, professional bodies and educational establishments, to disseminate and share knowledge regarding environmentally friendly and sustainable methods used in the construction and operation of the new health and social care campus. Continue to increase and enhance research evaluation, audit and quality improvement activity as a means of generating new knowledge, understanding and mindfulness across both the hospital and its wider partners.

Tracking Progress

The Trust will be measuring the development of this strategy through qualitative and quantitative means. Primarily we'll measure Trust progress by carrying out an annual assessment of the Green Plan. We will use a combination of the NHS Sustainable Development Assessment Tool (SDAT) and modeling benchmarked against our current carbon footprint and ERIC data.

Our ambition is to attain an overall SDAT score of 70% within the next five years and perform in line with the NHS national trajectories. The Green Plan will be reassessed after the completion of construction works for the New Hospital Programme as we migrate to the new Health and Social Care Campus.

Other quantitative reporting processes are in place via the annual NHS Estates Returns Information Collection (ERIC).



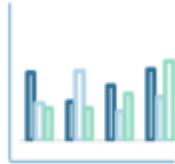
The Sustainability Development Assessment Tool (SDAT)

We have considered each of the 10 modules of the Sustainability Development Assessment Tool (SDAT) and set out our overall aim, specific objectives, and considered how we will measure and evidence progress.

Our current performance, in conjunction with the materiality assessment and the staff consultation, has informed this section. We've also indicated which of the SDGs we will be contributing to within each section.

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Corporate Approach



Short-term

- Sustainability is rooted in our vision to be outstanding in everything we do. Maintaining our assured governance and engaging accountable stakeholders and staff will ensure we do not compromise operations, policy, and reporting.

Long-term

- Grow teams that include sustainably aware employees supported through relevant training. Develop an estate that reflects the modern working environment such that it can facilitate the ideas and cultures required.

Environmental

- Develop our existing senior governance pathways to sustain the updating of strategy and performance reporting including annual reports to the hospital board
- Measure awareness and engagement levels through quality improvement (QI), evaluations and research activity.

Care

- Maintain a patient focus in our corporate approach to sustainable care
- Work closely with local communities to overcome communication barriers and develop more efficient and effective levels of clinical excellence.

Responsibility

- Incorporate sustainability as a big part of business cases creating better building blocks for the future
- Advance procurement strategy and tenders through sustainability Q&A and portfolio analysis.

People

- Create ample opportunity for cross division clinical input towards sustainable decision making
- Involve people, charities and organisations associated with sustainable development and host them as guest speakers in and around the hospital.

Measure



- *Weigh SDAT against sustainable goals*
- *Produce yearly sustainability surveys to assess workforce attitudes and culture*
- *Continue to produce a segment on sustainability in annual reports.*

Green Space and Biodiversity



Short-term

- Nurture existing green space and protect biodiversity within and around the hospital.

Long-term

- As we move and expand the estate, use and maintain as much of the trees, grass and natural surroundings as possible.
- Use the opportunity of new buildings to innovate and effectively use spaces such as rooftops, walls and internal gardens.

Environmental

- Include Green space and biodiversity in sustainability governance processes
- Push forward with local national initiatives which promote green space and biodiversity
- Prevent and significantly reduce water pollution by reducing the use of harmful chemicals.

Care

- Using the estate and technology, make visible to patients the green environment they're in as a way to support their wellbeing
- Wrap green space and biodiversity around the models of care with green walks, life and fresh air.

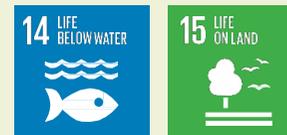
Responsibility

- Leave and conserve space for growth of rich wildlife
- Evaluate waste processes to insure the lasting health of the land.

People

- Build a workforce capable of maintaining onsite ecosystems and habitats encouraging nature in the workplace and vice-versa
- Integrate community events and local sustainable companies into the long-term plan as a way to encourage and maximise the use and value of urban green space. Involve farmers markets, incubational start-up facilities, specialised community gardens, flexible venues for activities and entertainment.

Measure



- *Have a stringent nature survey regiment.*

Carbon and Green House Gases



Short-term

- Through the analysis and measurement of our current emissions, we can identify and implement targets and technologies to reduce carbon output. (i.e. via the use of electric vehicles to reduce commuting emissions).

Long-term

- Our long-term ambition is to meet net zero carbon targets by moving away from traditional fossil based fuels for heating and transport to provide a decrease in our CO2 output and a reduction in our carbon footprint.
- Further focus on core areas such as the use of pharmaceuticals and anaesthetic gases.

Environmental

- Continually analyse carbon output and expand work on scope 3 emissions to align carbon reduction strategies with third parties
- Provide an ambitious programme that will focus down the largest CO2 contributors within the hospital. For example, anesthetic gases and pharmaceuticals.

Care

- Collaborate with hospital stakeholders to reduce medical carbon emissions across the ICS.

Responsibility

- Develop, trial and adopt innovative new technologies that have the potential to change the sustainable landscape and grow in the future. For example the Internet of Things and carbon cleaning/cleansing technology.

People

- Calculate staff, patient and visitor carbon contributions and focus down the largest carbon generators and influences

Measure

- *Include per person statistics in annual reporting.*



Sustainable Use of Resources



Short-term

- Evaluate how we handle waste and apply a hierarchy of thinking to formally structure new processes and develop new avenues, building towards circular economies.
- Aim to reduce the use of fossil fuels immediately and in line with the new hospital.

Long-term

- Create a wholly electric hospital with confirmed green sustainable suppliers that completely remove fossil fuel waste emissions.
- Take an innovative approach to waste reduction, transport and demolition.

Environmental

- Reduce and replace single-use products through detailed procurement plans and frameworks
- Procure products with long product life cycles and extended supplier maintenance/repair/warranty.
- Switch to biodegradable or recycled products where possible.
- Use more segregated bins to funnel recycling pathways
- Where possible upcycle and reuse/reissue items such as wheelchairs, crutches, etc.

Care

- Place more effective recycling bins in areas of high footfall within and around the hospital.
- Ensure waste disposal and removal is separate from any patient-facing service or location

Responsibility

- Collaborate with waste contractors to find efficient methods of disposal.
- Lay the groundwork for procurement strategies that allow for more service over product based solutions.

People

- Provide incentives for proper waste disposal.
- Help people to make healthier smarter decisions with advertisements such as posters and email communications.

Measure



- *Monitor waste input-output and the processes between.*

Capital Projects



Short-term

- Provide robust processes with contractors through full project cycles and estates strategy.

Long-term

- The building of a new hospital allows us to embed sustainability and innovate through smart design, modern methods of construction and off site construction.
- Minimise the carbon emissions through the process of decommissioning and demolition of older parts of the current hospital. Find new ways to use older materials for new purposes.

Environmental

- Ensure capital projects are built with sustainable principles as part of their vision and objectives. (i.e. BREEAM).
- Design facilities and utilities to be efficient with modern measuring methods, contemporary communication tools and tomorrow's building materials.

Care

- Highlight and emphasise access to clean air, green products, natural light and sustainable infrastructure within the new and current estate.

Responsibility

- Build strong lasting relationships with local and wider contractors. Reducing their carbon output where possible through digital meetings, sustainable transport and access to sustainable knowledge/design.

People

- Nominate sustainability leads on major capital projects with knowledge of modern methodologies.
- Help generate social value through identifying gaps in our wider stakeholders. For example, Suppliers, SME's and Social Care.

Measure



- *Programme sustainability into project management techniques and logging.*

Climate Change Adaptation



Short-term

- Mitigate the risk of climate change to the Trust by ensuring hospital wide awareness of how and why our actions impact the changes seen happening in the world around us.

Long-term

- As the world changes JPUH can adapt through innovation; embracing sources such as hydro-power, geo-thermal energy, bio-fuels, and bio-solar.

Environmental

- Identify the risk through risk registers and reporting governance
- implement adaption and innovation leads to control the direction and prevent reactionary attitudes.

Care

- Invest in resilience for our staff allowing them to deliver more effective sustainable care.

Responsibility

- Invest in the technologies and management systems that allow advanced measuring and monitoring.
- Be a champion in the local community, leading others to embrace more educational pathways and modern ideals.

People

- Adapting has meant using more remote working methods as a way to reduce travel to and from the hospital.

Measure

- *Utilise modern building standards and policy such as BREEAM/WELL.*



Our People



Short-term

- Strive to further support staff in their sustainable development and empower them to lead with it in mind.
- Aim to develop and improve staff accommodation to support quality of life, wellbeing, and integrated work systems.

Long-term

- Involve the greater community in a wall-less health campus. Seamlessly connecting patients and their health.
- Continue to promote healthy living throughout the hospital and the community.

Environmental

- Design recruitment strategies emphasizes our aim to nurture a culture that supports sustainable growth
- Build an approach to HR and performance reviews that helps quantify the Trusts commitment to Environmental betterment and change.

Care

- Creating workgroups and think tanks that generate ideas and goals building new relationships within the Trust.

Responsibility

- Provide the relevant infrastructure for future growth and support of staff both physically (i.e. electric vehicle charging points, green spaces, rest areas, etc.) and online via seminars, training and other learning opportunities.

People

- Provide staff with a wide range of training and development opportunities that encourage lifelong learning
- Encourage staff to walk or cycle to work by providing secure cycle storage areas and shower facilities
- Encourage the use of public transport and car sharing
- Support staff with the transition from fossil fuel based vehicles to electric and hybrid vehicles
- Promote health living by encouraging staff to eat a healthy diet and to be active at work and at home
- Celebrate and publicise sustainable achievements while measuring staff stories, testimonials, attitudes and actions relating to resistors.

Measure



- *Engagement with staff benefits*
- *Monitor sustainability projects in the hospital*
- *Track participation in sustainability training and programmes.*

Travel and Logistics



Short-term

- Implement immediate strategies to reduce commuting CO2 emission and encourage healthy modes of travel by staff, patients and visitors.
- Encourage the use of locally produced food, goods, and materials.

Long-term

- Encourage our supply chain to use sustainable methods of travel and production which reduce emissions and improve air quality.
- Completed the Clean Air Hospitals Framework Tool.

Environmental

- Work with local authorities to find innovative ways to maximise efficiency in travel within the wider scope of the hospital
- Encourage hot-desking, home working and the use of digital meetings to reduce commuting and business travel
- Reduce single occupancy travel by encouraging the use of public transport and car sharing
- Provide footpaths and properly landscaped environments around the hospital to encourage walking
- Provide secure bike parking compounds to encourage cycling
- Encourage staff to move to electric or hybrid modes of transport (i.e. support salary sacrifice schemes for electric cars, e-scooters and e-bikes)
- Provide electric vehicle charging points for staff visitors and patients.

Care

- Review travel and logistical infrastructure on the current hospital site and for the new Health and Social Care Campus to inform and develop future plans for travel and logistics improvements
- Investigate the potential for the transition to electric commercial vehicles.

Responsibility

- Prioritise reducing supply chain and their associated Scope 3 emissions.

People

- Provide experienced supporting services and a workforce commitment for helping stakeholders achieve reduction in their own carbon footprint
- Provide financial and social incentives for sustainable adoption.

Measure



- *Annual staff travel survey*
- *Carbon emissions from travel*
- *Air quality on site*
- *Proportion of Trust fleet that is EV and provision of EV infrastructure*
- *Health Outcomes Travel Tool (HOTT).*

Asset Management and Utilities



Short-term

- Reduce our dependence of fossil fuels (i.e. natural gas) and move towards sustainable alternatives within the existing building.
- Ensure that sustainability is considered as a high priority in the development of all capital developments . For example, new staff accommodation, new hospital and beyond.

Long-term

- Create a new Health and Social Care Campus where energy efficiency is one of the first considerations, starting with efforts to reduce building energy demand before the introduction of complex mechanical systems.

Environmental

- We aim to reduce the consumption of fossil fuels as part of our journey to achieving net zero carbon. This includes a change to electrically powered heater batteries for future specialist ventilation systems
- Educate our staff, patients and visitors regarding the effective use of resources promoting .

Care

- Create quick response teams and lean practices of care to respond to patient and staff issues regarding utilities, repairs and outages
- Use estates management software to control and monitor energy usage allowing for ample energy segmentation.

Responsibility

- Increase the capability on site for renewable energy production
- Procure utility equipment with low energy life cycle costs
- When leasing, build or ask for the necessary improvement to make the assets sustainable.

People

- Ensure appropriate workforce allocation throughout the Trust and outsource where required
- Make available the proper sustainability training to those managing assets and utilities.

Measure



- ERIC returns
- Percentage of energy from renewable sources.

Sustainable Care Models



Short-term

- Update the Clinical Strategy with the objective of delivering the finest quality of care that supports social, environmental and economic systems.
- Improve our offer of virtual care. For example, attend anywhere outpatient appointments.

Long-term

- Create a new Health and Social Care Campus which supports new models of care that are both more efficient and effective at meeting patient needs.
- Promote prevention rather than cure and where possible, deliver care closer to home.

Environment

- Create a more healing environment through the design of the new hospital, one that support clinical excellence and improves quality of care
- Use the benefits of the new Health and Social Campus to enable patient and clinician led pathway redesigns.

Care

- Incorporate flexible working and attend anywhere appointments to free-up more clinician time and support.

Responsibility

- Explore new innovative tools to help develop a culture of medical/surgical transformation and improvement.

People

- Work with all staff to identify hotspots and choke points in services that affect sustainable care
- Ensure consultation with a wide range of stakeholder to develop new models of care.

Measure

- *Use of patient feedback and review.*



Governance

Approval

The Green Plan is reviewed and approved by the Trust Board.

Annual Reporting to the Board and Commissioners:

An annual progress review is provided to the Board to ensure that implementation of the Green Plan is on track. This includes a dashboard of key targets, compliance levels, and anticipated or realised benefits and outcomes (i.e. reduction of carbon footprint).

Mid-term review

The Green Plan will have a term of 4 years, and it shall be reviewed half-way through its life cycle. This review shall consider whether the ambitions, content, and context of the Green Plan continue to be relevant.

At the end of its term:

The Green Plan together with the process followed and progress against targets shall be carefully examined and evaluated before a new Green Plan is developed.

Reporting

Rigorous systems of reporting are an essential part of measuring our sustainable practices and are a key part of measuring and benchmarking our position in the wider ICS. Below are the core methods of reporting in regards to sustainability;

- **Annual Report**

The JPUH is required to produce an Annual Report which includes details of carbon emissions from all sources in the direct ownership or control of the Trust.

- **Estates Return Information Collection (ERIC)**

All acute hospitals are required to participate in the annual NHS Estates Return Information Collection (ERIC). The aim of the ERIC is to provide accountability to Parliament, the Government, and the public. The reporting process offers a wide range of metrics including the physical size of the organisation, consumption of natural resources, creation of waste together with other financial and performance data. Data is captured at a national level and it is evaluated by the Department of Health and Social Care.

- **Sustainability Development Assessment Tool (SDAT)**

Internal assessment via the SDAT tool shows our progress with regards to sustainability. It also help us to set our aims and objectives each year.

Risk

To accomplish our aims set out in this strategy we need high levels of accountability to reduce the possibility and impact of risks. The Trusts monitors, measures and logs risk through internal governance. Outlined below are the principle risks involved with the delivery of this strategy

Finance

Cumulative energy costs and waste disposal costs may conceal some of the efficiency savings we make from executing the strategy, so we will alleviate this risk by upholding senior provisions and clear reporting.

Not meeting targets

As we strive to deliver clinical excellence for patients the intensity of operations and the constant expansion of the estate may hamper our ability to meet emissions targets. We will need concrete reporting measures based on nominalised metrics. (e.g. per patient contact, bed day or per m²)

Legislation

Due to the contemporary emergence of net zero carbon and accelerated government time frames there is a compliance risk. The Trust may struggle with the appropriate levels of awareness, the consequences of which could be financial as well as reputational. To mitigate this possibility we will need to perform actively rather than reactionary, as well as engage with wider system partners.

Finance

Revenue

To achieve net zero carbon will undoubtedly require increased revenue funding for the procurement of green renewable fuels and technologies. However, effective and efficient management of environmental performance can also reduce inefficiency and waste which can produce meaningful fiscal benefits.

There are numerous ways that we can manage expenditure including:

- Implementing robust procurement exercises which consider both sustainability, whole life cost and value for money.
- Increasing efficiency and reducing waste via the implementation of new technology, digitalization: taking advantage of public health funding schemes wherever possible.
- Working with third parties and charities to identify new funding initiatives and joint venture opportunities that support sustainability and carbon reduction.

Capital

Estates are at the centre of the Government's plans for transforming the NHS and the largest hospital building plan in a generation was launched in 2019. It plans to deliver a long-term programme of investment in health infrastructure, with an investment of £2.8 billion for six large hospitals to be built by 2025. A further 21 schemes will be delivered between 2025 and 2030.

The construction of the new James Paget Health and Social Care Campus between 2025 and 2030 will act as a significant enabler for implementing low-carbon technologies and modern efficient buildings. Introducing new technology and innovation will also help us to provide new care pathways for our patients, which will also aid us in the journey to net zero carbon.

Communications

To help initiate change, we will take an engaging approach that will put everyone on the same page, encouraging their participation and involvement in developing ideas. We shall consult with staff, patients, and stakeholders within the community regarding our future strategy.

To help reinforce sustainable behaviours, we will use internal communications, emails, wellbeing promotions, newsletters, and social media. We also work alongside our community and with our local Borough Council for joint promotions and wider reach.



Our communications via social media will use simple and meaningful language to ensure that our message on sustainability is consistent and clear.

We know there is no standardised "one size fits all" approach to communicating sustainability and we have a large and diverse body of staff to engage. Our approach includes upholding high-quality and consistent communications across an assortment of channels.

We frequently evaluate and learn from what we do. We will maintain a communications plan for all of the requirements that fall under this strategy.

Glossary

CO2	Carbon dioxide, an acidic colorless gas with a density about 53% higher than that of dry air.
CO2e	Carbon dioxide equivalent or CO ₂ equivalent. A metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential.
JPUH	James Paget University Hospitals NHS Foundation Trust
SDAT	Sustainable Development Assessment Tool
MMC	Modern Methods of Construction
BREEAM	Building Research Establishment Environmental Assessment Method, a sustainability assessment method that is used to masterplan projects, infrastructure and buildings.
SDG	Sustainability Development Goal
UKGBC	UK Green Building Council
SME	Small Medium Enterprise
ICS	Integrated Care System