



MEETING TITLE Trust Board Meeting held in Public		MEETING DATE 28/01/2021	
TITLE of PAPER	Yorkshire Ambulance Service's Green Plan	PAPER REF	TB20.063
KEY PRIORITIES	Be a respected and influential system partner, nationally, regionally and at place Create a safe and high performing organisation based on openness, ownership and accountability Develop public and community engagement to promote YAS as a community partner; supporting education, employment and community safety		
PURPOSE OF THE PAPER	The purpose of the paper is to seek approval of the Yorkshire Ambulance Service Green Plan. This is a requirement of the Greener NHS programme and the NHS Standard Contract.		
For Approval	<input checked="" type="checkbox"/>	For Assurance	<input type="checkbox"/>
For Decision	<input checked="" type="checkbox"/>	Discussion/Information	<input type="checkbox"/>
AUTHOR / LEAD	Alexis Percival, Environmental and Sustainability Manager	ACCOUNTABLE DIRECTOR	Kathryn Vause, Interim Executive Director of Finance
DISCUSSED AT / INFORMED BY – Board approval for the YAS Carbon Management Plan in 2010 Board training November 2019 Climate Change Training February 2020 Trust Executive Group December 2020 Board Paper on the Greener NHS December 2020			
PREVIOUSLY AGREED AT:		Committee/Group: Board of Directors Trust Executive Group	Date: 14/01/2010 02/12/2020
RECOMMENDATION(S)		It is recommended that the Board: <ul style="list-style-type: none"> i. Approve the Green Plan ii. Pledge to become carbon neutral by the latest 2040 in line with the Greener NHS programme iii. Identify a Board level lead for sustainability iv. To regularly review sustainability and carbon reduction progress (six monthly) in line with the Green Plan. v. Consider the need for funding for indentified initiatives alongside other trust requirements. And consider : <ul style="list-style-type: none"> vi. If to publicly declare a 'Climate Emergency' (becoming the first NHS Ambulance Trust to do so), although it is recognised that with current performance issues and the ongoing Covid that this may not be the right time to do so. 	

RISK ASSESSMENT		Yes	No
Corporate Risk Register and/or Board Assurance Framework amended <i>If 'Yes' – expand in Section 4. / attached paper</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equality Impact Assessment <i>If 'Yes' – expand in Section 2. / attached paper</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Resource Implications (Financial, Workforce, other - specify) <i>If 'Yes' – expand in Section 2. / attached paper</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Legal implications/Regulatory requirements <i>If 'Yes' – expand in Section 2. / attached paper</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
ASSURANCE/COMPLIANCE			
Care Quality Commission Choose a DOMAIN(s)	All Choose an item.		
NHSI Single Oversight Framework Choose a THEME(s)	1. All Choose an item.		

YORKSHIRE AMBULANCE SERVICE'S GREEN PLAN

1. PURPOSE/AIM

- 1.1 The purpose of the paper is to seek approval of the Yorkshire Ambulance Service's Green Plan. This is a requirement of the Greener NHS programme and the NHS Standard Contract.

2. BACKGROUND/ CONTEXT

2.1 YAS's Carbon commitment

In 2009, YAS committed to reducing its carbon emissions in line with the Kyoto Protocol through the Board-approved Carbon Management Plan. The Carbon Management Plan was last approved by the Board in January 2010.

The Green Plan - 2020 to 2025 clearly identifies a route to reducing our carbon emissions in line with Net Zero targets and the Greener NHS programme over the next 5 years. We need to be ambitious with our targets to eliminate our impact on the community we serve.

2.2 National and International context

The Lancet Commission has called climate change "the biggest global health threat of the 21st century" but rapid, comprehensive action to tackle climate change "could be the greatest global health opportunity of the 21st century."

The NHS is the largest employer in the UK and the fifth in the world. The impact that the NHS has on the environment is enormous; from contributing to 7% of road traffic, to procurement, to emissions from our utilities. Around 7% of all NHS estate is located in areas susceptible to flooding. We are already suffering the outcomes of climate change's extreme events that are occurring now. The NHS has a moral responsibility to eliminate the health service's carbon emissions.

The World Health Organization's Special Report for COP24 reports that climate change could force 100 million more people into extreme poverty by 2030, with major impacts on morbidity and mortality. They have projected a conservative 250,000 deaths per year between 2030-2050 for a narrow subset of well-understood effects of climate change (heat exposure of the elderly, diarrhoea, malaria and childhood undernutrition). The UK will have 5 million displaced from rising sea levels by 2100. We will have more extreme weather, more moorland fires, more flooding.

They have also warned that "on the basis of current emission trajectories, temperature rises in the next 85 years may be incompatible with an organised global community". Evidence from the Priestley Centre researchers, who helped write the [IPCC's Special Report on Global Warming of 1.5°C¹](https://www.ipcc.ch/sr15/), shows that in order to avoid catastrophic climate change, we must drastically reduce

¹ <https://www.ipcc.ch/sr15/>

carbon emissions by 2030. Following the report's release, Sir David Attenborough said: "If we don't take action, the collapse of our civilisations and the extinction of much of the natural world is on the horizon."

Climate change will have huge detrimental consequences for health and this burden will disproportionately fall on the most vulnerable. We stand at a cross roads where action must be taken and taken now or today's children will bear the heavy cost of our inaction. As the NHS, we have a duty to safeguard our patients and communities as well as our health service for future generations.

The NHS will be directly affected by a dramatic increase in the lack of funding as there are more calls on our services through climatic challenges.

2.3 NHS Requirement

It is requirement for all NHS organisations to have a Board approved Green Plan (formerly called Carbon Management Plan or Sustainable Development Management Plan (SDMP)) under the NHS Standard Contract. This must be reported on annually.

Under the SDAT requirements, key performance indicators must be reported to the Board on a regular basis (at least 6 monthly).

2.4 Legislative requirements

Please refer to Appendix C for a full list of current related legislation

2.5 Greener NHS

There are two targets for the NHS Net Zero commitment, based on the scale of the challenge posed by climate change, current knowledge and the interventions as well as 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 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

Further details on the Greener NHS programme and the requirements this places on Yorkshire Ambulance Service, can be found in Appendix B.

3. PROPOSALS/NEXT STEPS

3.1 Proposal

The five year Green Plan is provided to the Board for approval.

3.2 Next Steps

An annual update will be provided to Board as to progress in line with the Green Plan's five year update. A six monthly update will be provided as to the progress.

The team will formulate a fully costed programme for further consideration.

Yorkshire Ambulance Service NHS Trust should consider declaring a Climate Emergency, becoming the first NHS Ambulance Trust to do so, although it is recognised that with current performance levels and the ongoing Covid that this may not be the right time to do so.

3.3 Board recommendations

The Board have the opportunity to become pioneers of turning the blue light green and challenge the ambulance service across the UK to become carbon neutral.

It is recommended that the Board

- Appoint a Board lead on sustainability who is suitably trained.
- Green Plan key performance indicators are reported to Board at least every six months.
- Sustainable Board leadership sessions are provided.
- There is a standing section on sustainability on the Board agenda.
- Sustainable development is considered in all business cases.
- Consider a long term investment in meeting the Net Zero carbon targets.

4. RISK ASSESSMENT

4.1 Risk Register

Climate Change is now on the YAS risk register and the impact of each climatic impact is being assessed. All the elements of climate change will have a direct impact on our staff as well as our patients. It will also have a direct impact on the way that we respond, how we can respond and how we reach patients. Our response times have already been affected by climatic impacts like excessive rain, heatwaves, increase in the number of calls and incidents and vehicles being affected by flood waters.

YAS needs to ensure that mitigation measures are put in place to ensure that we are prepared for climate changes. Some of our sites are vulnerable to flooding from surface water as well as water bodies and sea level rise.

The climate emergency and the Green plan will require both significant and continued investment to achieve our goals within the timescales, this funding will need to be agreed against other priorities.

The Net Zero Carbon programme will mean that all new construction (Hub & Spoke) will need to be built to new Net Zero carbon standards, which comes at an initial 30-40% capital premium, albeit with significantly reduced operating costs.

All refurbishments will be need to be built with energy and carbon reduction reduction in mind, based on the current Estates refurbshment plan, the increased cost to meet these requirements against current depreciation funding will reduce the number of refurbshments undertaken annually and will need to be reflected in the Estates Strategy.

4.2 Impact on YAS

4.2.1 Impact on YAS staff

YAS staff are already experiencing issues associated with an unpredictable climate. Our staff as well as our patients are being affected now by flooding, extreme heat and heatwaves, wildfires and air quality as well as the knock on effects from the climatic changes.

The photographs presented below were taken by road staff and shows the situations that they are already having to contend with more and more frequently.

YAS also needs to commence a training programme for staff to understand the risk of many of the climatic changes that will lead to an impact on patients and the way in which we respond during flood events or heat wave events.



4.2.2 Impact on YAS Estate

The YAS estate is susceptible to flooding as was shown by the Sheffield floods in November 2019. Bentley ambulance station was nearly flooded and access cut off for several days.



A full flood risk assessment is currently being undertaken to look at the present day and future risks from flooding on the estate and the surrounding area.

We are also undertaking a full climate adaptation plan in order to understand the upgrades and protective measures we need to install in order to prepare our estate for climatic changes.

5. RECOMMENDATIONS

It is **recommended** that the Board:

- i. Approve the Green Plan
- ii. Pledge to become carbon neutral by the latest 2040 in line with the Greener NHS programme
- iii. Identify a Board level lead for sustainability
- iv. To regularly review sustainability and carbon reduction progress (six monthly) in line with the Green Plan.
- v. Consider the need for funding for identified initiatives alongside other trust requirements.

And **consider** :

- vi. If to publicly declare a 'Climate Emergency' (becoming the first NHS Ambulance Trust to do so), although it is recognised that with current performance issues and the ongoing Covid that this may not be the right time to do so.

6. APPENDICES/BACKGROUND INFORMATION

Appendix A – Green Plan

Appendix B – Greener NHS programme summary

Delivering a 'Net Zero' National Health Service



On 1st October 2020, the Greener NHS report was finally issued (should have been released in May 2020). The NHS is the third largest organisation on the planet (behind the Chinese and American Military) and has a moral responsibility to ensure that it eliminates carbon where possible. This report lays out bold plans for the future of decarbonising the NHS.

This report highlights the importance of decarbonising the NHS.

The headlines

There are two targets for the NHS Net Zero commitment, based on the scale of the challenge posed by climate change, current knowledge and the interventions as well as 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 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 Greener NHS programme will encompass these steps

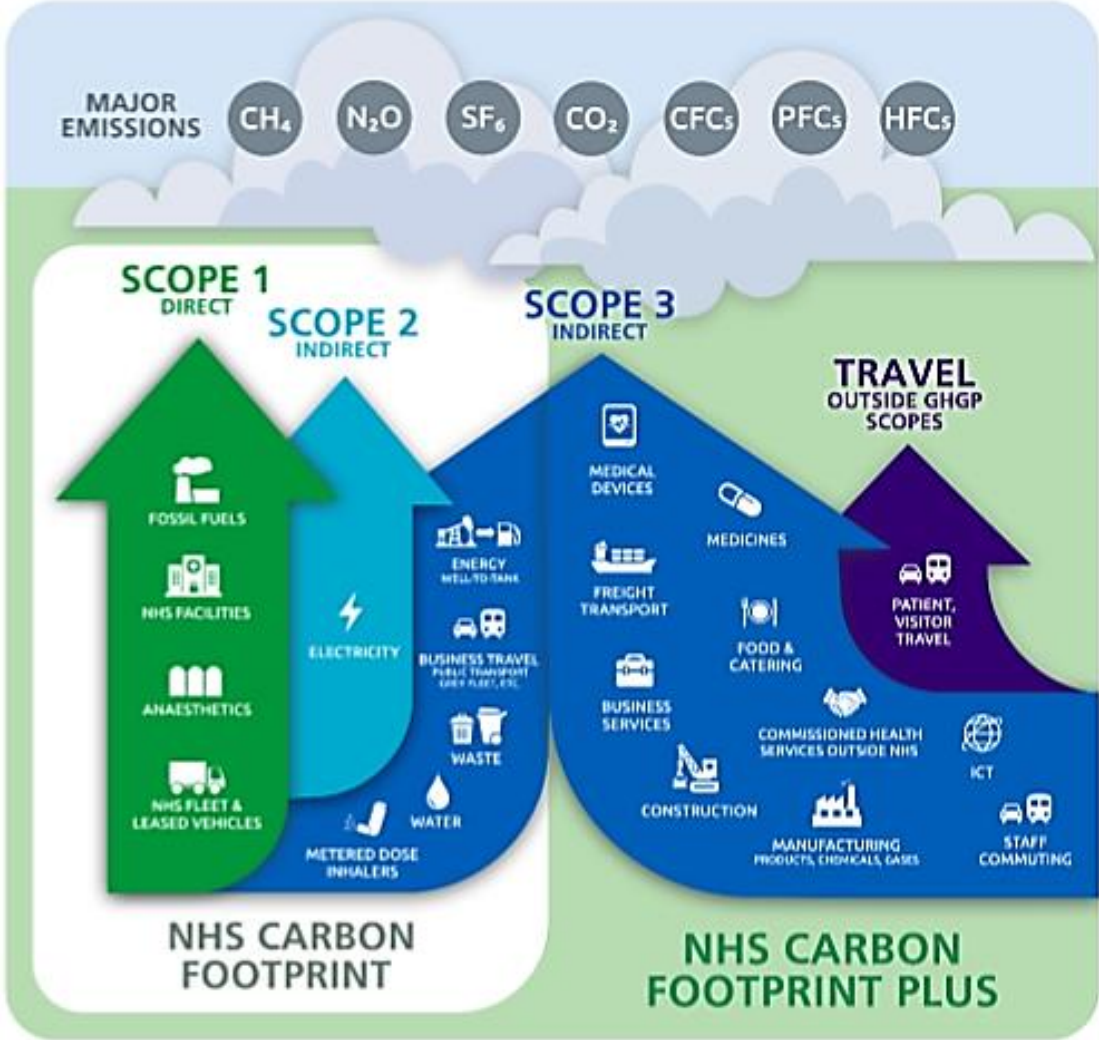
1. Our care: By developing a framework to evaluate carbon reduction associated with new models of care being considered and implemented as part of the NHS Long Term Plan.
2. Our medicines and supply chain: By working with our suppliers to ensure that all of them meet or exceed our commitment on net zero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

The Scoping Assessment

The carbon footprint of the NHS is broken down into two areas:

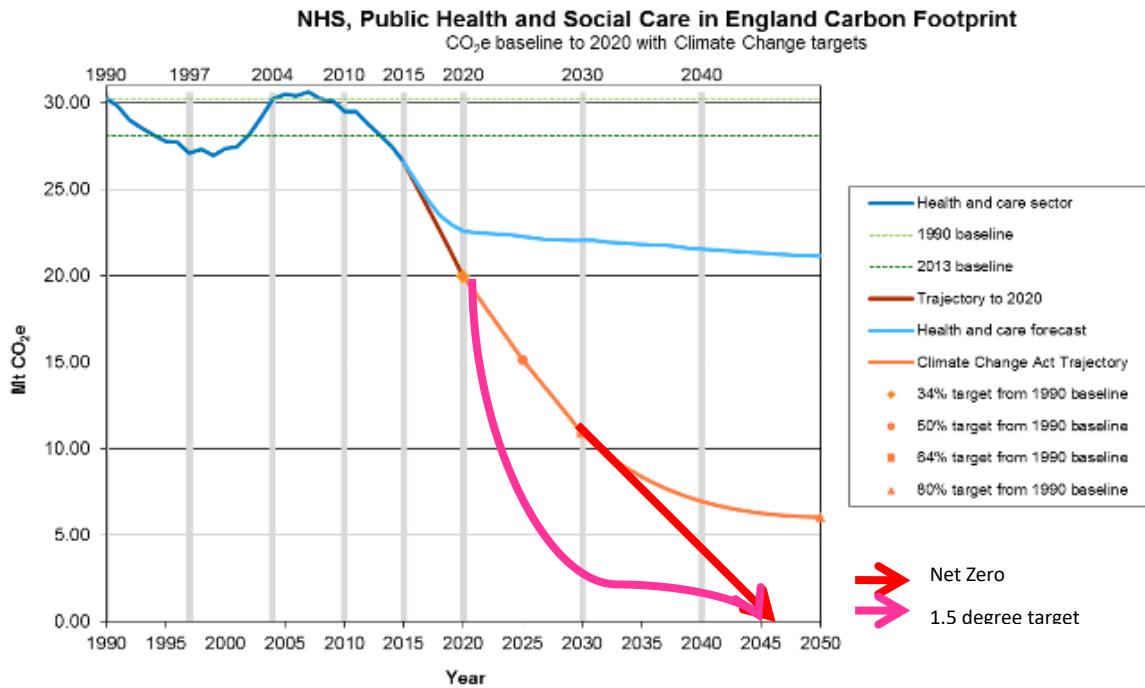
- NHS Carbon Footprint - Scope 1 and 2 – direct and indirect
- NHS Carbon Footprint Plus - Scope 3 – Indirect and travel

Details as to what is affected by the Scope emissions are presented below.



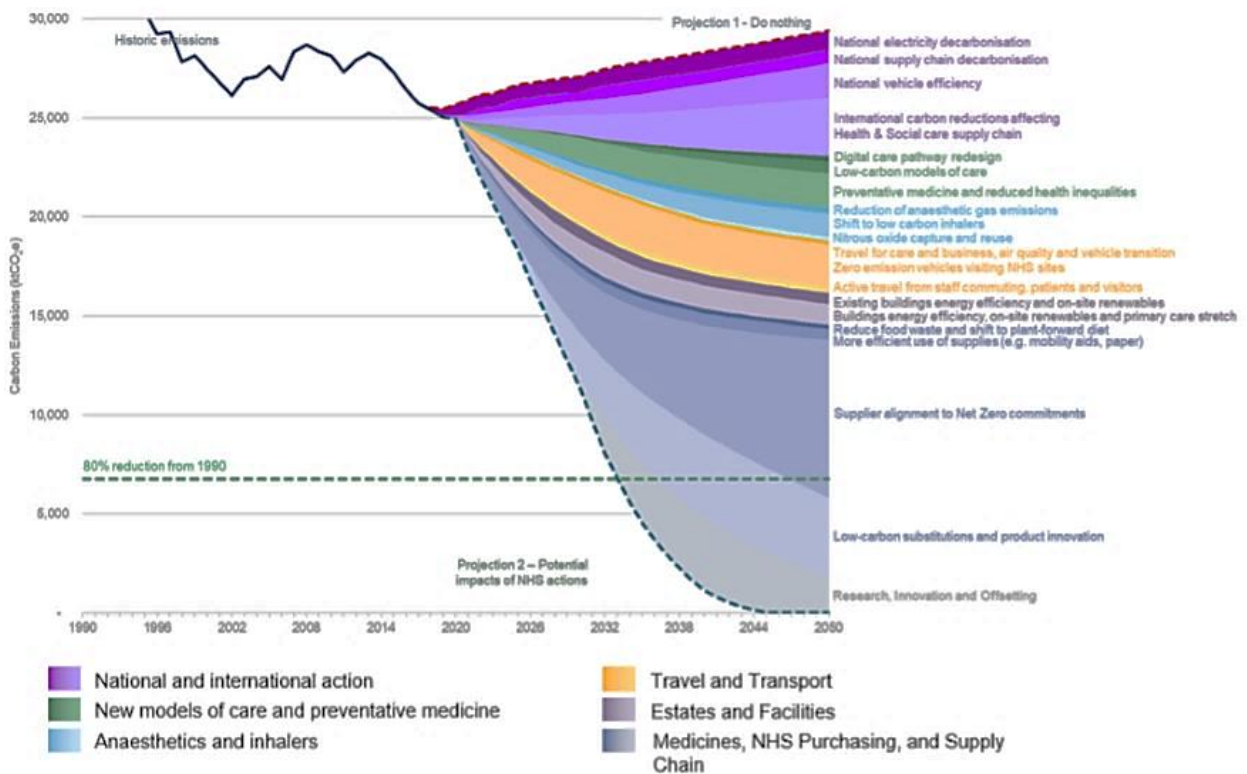
The Carbon Footprint

The Carbon Footprint of the NHS has been tracked since 2009 with details of carbon emissions going back to 1990.



This report identifies the challenges that are needed to be tackled to reduce the carbon footprint.

Figure 5: Pathway to net zero for the NHS Carbon Footprint Plus Scope



The Implementation

Details are provided below as to the processes that will be rolled out as part of the Net Zero agenda.

Estates and Facilities

Estates and facilities contribute 15% of the total NHS carbon footprint. The Greener NHS will look for solutions to upgrade the buildings within the estates including looking at LED lighting, air conditioning and cooling, building fabric, space heating, ventilation and hot water. They will also be looking at building use including artificial intelligence, monitoring and control as well as the use of roof and adjacent land for heat generation and renewable energy. There is a requirement to look at a circular economy principles to waste management to include the reuse of equipment and furniture. There is a requirement for the NHS estate to switch to 100% renewable energy by 2021.

Travel and transport

Road travel from patients, visitors, staff and supplier to the NHS contributes around 14% of the NHS's carbon footprint.

The Greener NHS will look to encourage active travel such as cycling and walking. Ambulances pose a particular challenge and require targeted interventions. However, for the rest of the fleet, the NHS should options for a complete transition to zero-emission vehicles by 2032.

Procurement and Supply Chain

The NHS Carbon Footprint Plus considers an expanded scope of emissions, covering the products procured from its 80,000 suppliers. There is a broad range of reductions for emissions required from medical and non-medical equipment (18%), food and catering (6%), other procurement (18%), commissioned healthcare services outside the NHS (4%) and medicines and pharmaceuticals (20%). The Greener NHS is looking to substitute for low-carbon alternatives where they are available with their role to identify and encourage innovative approaches that will deliver improved patient outcomes with a reduced impact on the climate. The NHS will work to ensure that suppliers are decarbonising their own processes and provide clear and long-term signals about the direction of travel. Work is required over the next 12 months is required to determine the precise dates, timelines and mechanisms to deliver these initiatives. However, the long-term target is clear: before the end of the decade, the NHS will no longer purchase from suppliers that do not meet or exceed our commitment to net zero.

Food, catering and nutrition

The Hospital Food Review, announced by the government in August 2019, is expected to consider sustainability and the impact of the whole supply chain, including sustainable procurement and waste. Alongside this review, new national standards for healthcare food for patients, staff and visitors will be developed by NHS England and NHS Improvement later this year.

Pharmaceuticals

Medicines account for 25% of emissions within the NHS. A small number of medicines account for a large portion of the emissions, and there is already a significant focus on two such groups – anaesthetic gases (2% of emissions) and inhalers (3% of emissions) – where emissions occur at the 'point of use'. The remaining 20% of emissions are primarily found in

the manufacturing and freight inherent in the supply chain. There is a need to look at a reduction in the anaesthetic gas use and implement gas capture as well as roll out low carbon inhalers. The NHS Long Term Plan committed to lowering the 2% of the NHS' carbon footprint from anaesthetic gases by 40%, by transforming anaesthetic practice. Significant carbon savings are available by decreasing nitrous oxide wastage, with the College of Paramedics estimating that 30% of nitrous oxide is left in canisters after use. Recycling or reusing this is technically difficult, with new methods required to address the residual nitrous oxide.

Innovation

The NHS will look to reduce the residual carbon emissions through research and innovation. Net zero will be included in the NHS' research strategy.

Sustainable Models of Care

The NHS Long Term Plan set out a commitment to deliver a new service model for the 21st century. If the NHS is to reach net zero emissions, that new service model must include a focus on sustainability and reduced emissions with digitally enabled care models and channels for citizens that will significantly reduce travel and journeys to physical healthcare locations.

Digital

The digital part of the NHS needs to start building net zero into the digital maturity framework and start supporting front-line digitisation of clinical records. Policies need to ensure that that NHS data centres and companies providing these services minimise their environmental impact and support the drive to reach net zero. Future opportunities for net zero identified as part of digital transformation include: digitising the estate and smart hospitals; ensuring large-scale migration of trust data centres into the hyper-scale cloud; and reducing the need for the storage of large volumes of data.

The impact on the Ambulance Service

- A sustainability board lead in post for every ambulance service in the UK
- Set carbon reduction targets to eliminate carbon by 2040 at the latest
- Board approved Green Plan¹ with clear sustainability and carbon targets (April 2021)
- Sign up to the NHS Plastics Pledge and eliminate single use plastic where possible
- All new builds and retrofits building projects have to be Net Zero
- Reduce air pollution from vehicles purchased/leased after 1 April 2020 to support the transition to low and ultra-low emission vehicles (ULEV)
- Ensure car leasing schemes restrict the availability of high-emission vehicles
- Conduct a Green and Grey fleet review with the Energy Saving Trust
- End business travel reimbursement for domestic flights within England, Wales and Scotland
- Move to green electricity contract by April 2021
- Zero waste to landfill and reduce waste by 50%
- Reduce business mileage by 20% by 2023/24
- Create a Climate Change Adaptation plan that incorporates EPRR planning
- 90% of fleet to be zero emission (including 25% ultra-low emissions) by 2028
- Reduce unnecessary emissions of anaesthetic gases
- Create a fossil fuel phase out strategy including diesel, petrol, oil and gas use and phase out primary heating from coal and oil fuel

- Encourage staff to use zero emission modes of transport

Ultimately we need to lay out a plan for decarbonisation by 2040 with an 80% reduction by 2032. We need to work with our supply chain to eliminate their emissions by 2045.

The Target

There are some targets that are identified in the report that will

- Decarbonisation of the NHS carbon footprint by 2040 and the NHS carbon footprint plus by 2045
- There is a proposal that the NHS Constitution is updated to include the net zero ambitions and sustainable development
- All NHS organisations – including every region and integrated care system – will also be required to have a board-level lead, responsible for leading on net zero and the broader greener NHS agenda.
- Delivery of this Greener NHS plan will require ongoing, targeted investment and an aligned financial policy and decision-making process.
- Ensure all vehicles purchased or leased are low and ultra-low emission (ULEV), in line with the existing NHS operating planning and contracting guidance deliverable for 2020/21.
- Meet the NHS Long Term Plan commitment for 90% of the NHS fleet to use low, ultra-low and zero-emission vehicles by 2028, and go beyond this with the entire owned fleet of the NHS eventually reaching net zero emission.
- Undertake green fleet reviews to identify immediate areas of action at the individual trust level.
- Sign up to the NHS Plastics Reduction Pledge

Background information

Read the Greener NHS report - <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

More details on the Greener NHS programme can be found on the Greener NHS webpages - <https://www.england.nhs.uk/greenernhs/>

Appendix C –Legislation

List of the key legislative drivers (as of April 2020)

- Civil Contingencies Act 2004
- Public Services (Social Values) Act 2012
- Climate Change Act 2008
- Climate Change Act 2008 (2050 Target Amendment) Order 2019 enacting a Net Zero target by 2050

Mandatory

Legislation mandated within the NHS Standard Form Contract requirements for Sustainable Development 2017-19

- HM Treasury's Sustainability Reporting Framework
- Public Health Outcomes Framework

International

Legislation driven by International Guidance Intergovernmental Panel on Climate Change (IPCC) AR5 2013

- United Nations (UN) Sustainable Development Goals (SDG's) 2016
- World Health Organisation (WHO) toward environmentally sustainable health systems in Europe 2016
- World Health Organisation (WHO) Health 2020; European policy for Health and Wellbeing
- World Health Organisation (WHO) Europe – Social Determinants and the Health Divide
- The Global Climate and Health Alliance; Mitigation and Co-benefits of Climate Change

UK guidance

Driven by UK Guidance National Policy and Planning Framework 2012

- Department of Environment, Food and Rural Affairs (DEFRA) The Economics of Climate Resilience 2013
- Department for Environment, Food and Rural Affairs (DEFRA) Government Buying Standards for Sustainable Procurement 2016
- The Stern Review 2006; the Economics of Climate Change
- Health Protection Agency (HPA) Health Effects of Climate Change 2012
- The National Adaptation Programme 2013: Making the country resilient to the changing climate
- Department of Environment, Food and Rural Affairs (DEFRA) 25 Year Plan

Health Specific Requirements

- The Marmot Review 2010: Fair Society, Healthy? Lives
- NHS Standard Contract Sustainable Development requirements
- Five Year Forward View 2014
- Sustainable Development Strategy for the Health and Social Care System 2014-2020
- Saving Carbon, Improving Health: a NHS carbon reduction strategy
- Adaptation to climate change for health and social care organisations
- The Carter Review 2016
- National Institute for Clinical Excellence (NICE) Physical Activity: walking and cycling 2012
- Health Technical Memoranda (HTM)'s and Health Building Notes (HBN)'s
- Social Value Act 2012
- NHS Long Term Plan aims to reduce fleet air pollutant emissions by 20% by 2023/24 and to support the government's target to reduce emissions by 80% by 2050
- Principle 6 – NHS Constitution

- Public Health Outcome Framework
- Sustainable Transformation Partnerships (STP) Plans
- Lord Carter's review into unwarranted variation in NHS ambulance trusts 2018
- NHS Operational Planning and Contract Guidance 2020/21