

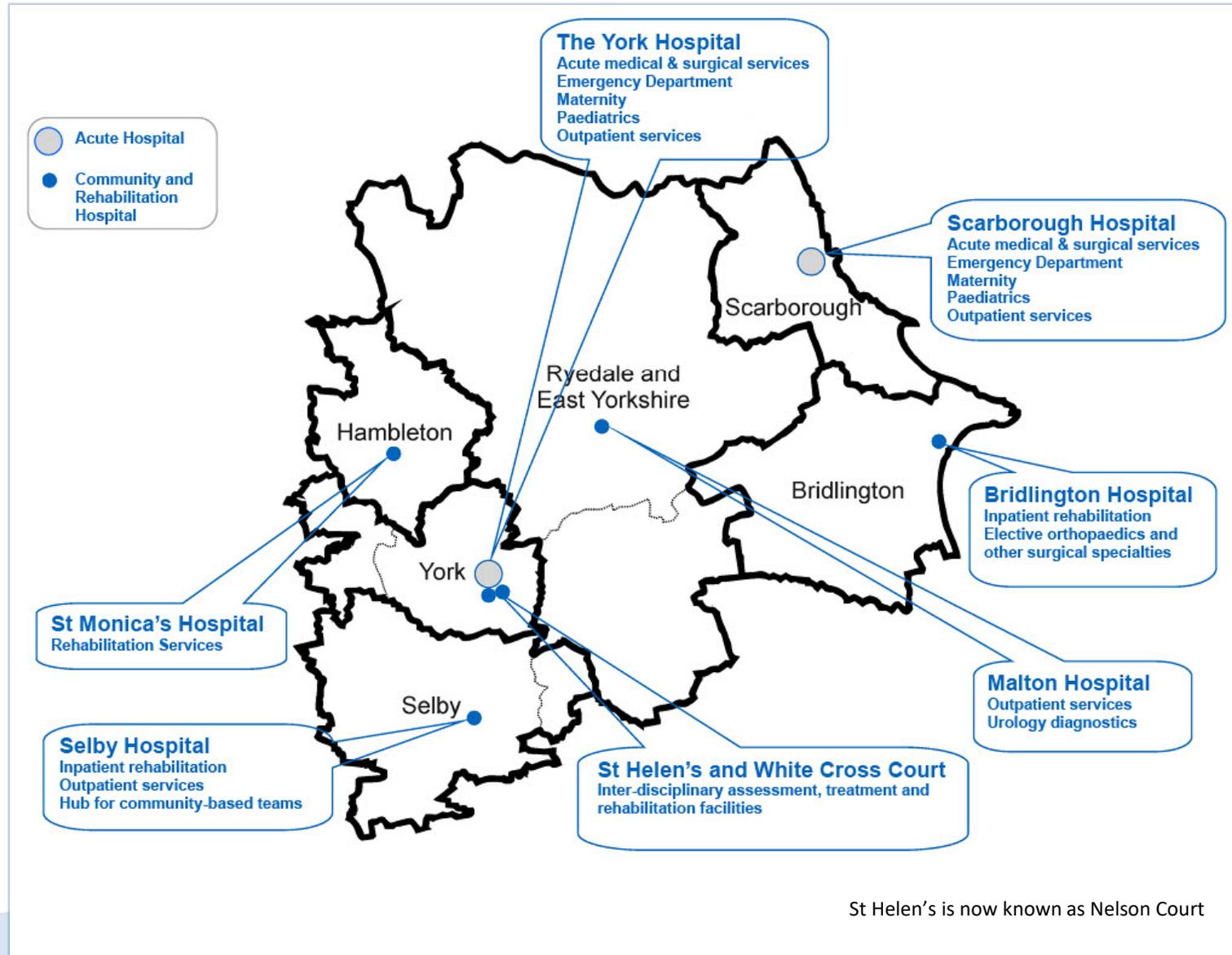
# Sustainability and Net Zero at York and Scarborough Teaching Hospital NHS Foundation Trust

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# About us : Our Hospitals



St Helen's is now known as Nelson Court

# Our Services

- The Trust operates a wide range of inpatient, outpatient and community services across the region and provides emergency care through A&E units in York, Scarborough and Selby.
- In 2019-20, the Trust had more than 1.2 million patient contacts across our sites, along with over 300,000 visits to patients in the community
- Over 700,000 patients are seen every year at the York site, representing around 60% of our clinical activity.
- Covering an area of 3,400 square miles
- Employing approx. 10,000 staff
- 8 hospitals, plus 60 other sites

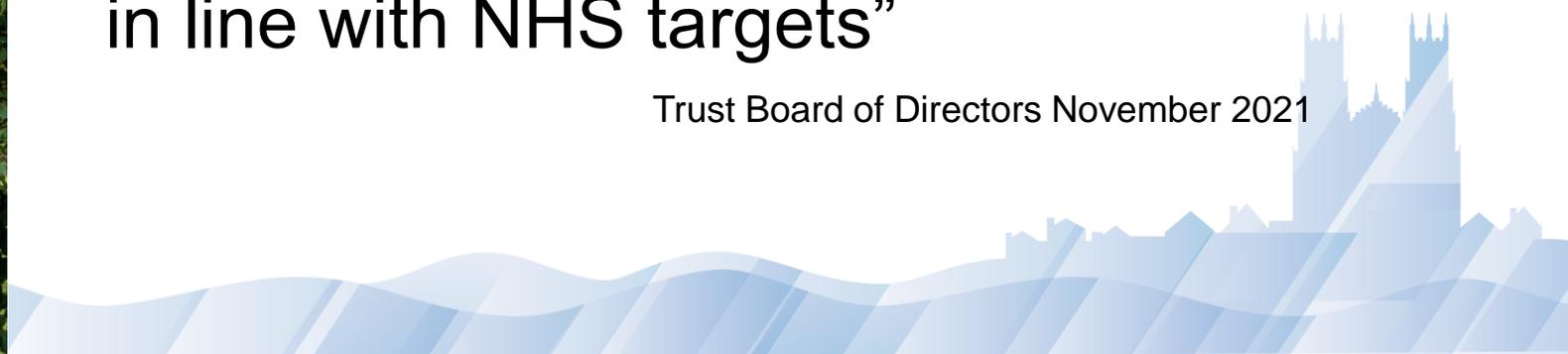


York Hospital Main Entrance

## Mission statement

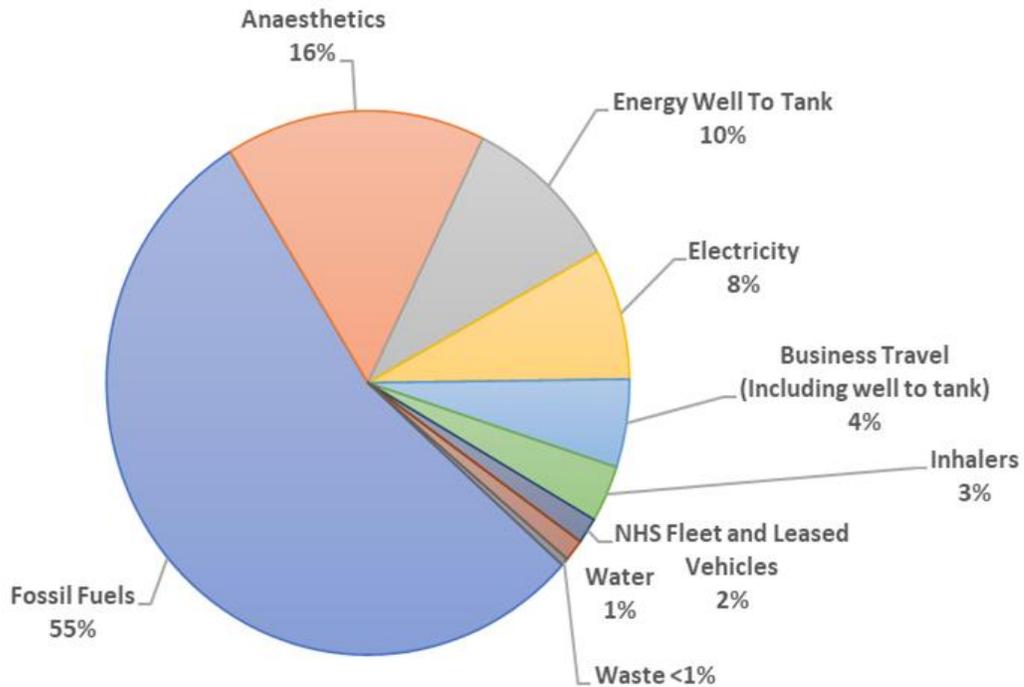
“York and Scarborough Hospitals NHS Foundation Trust strives to actively encourage, promote and achieve zero carbon emissions in all that it does, through its staff, its services, its premises, its patients and visitors, and its partners in line with NHS targets”

Trust Board of Directors November 2021



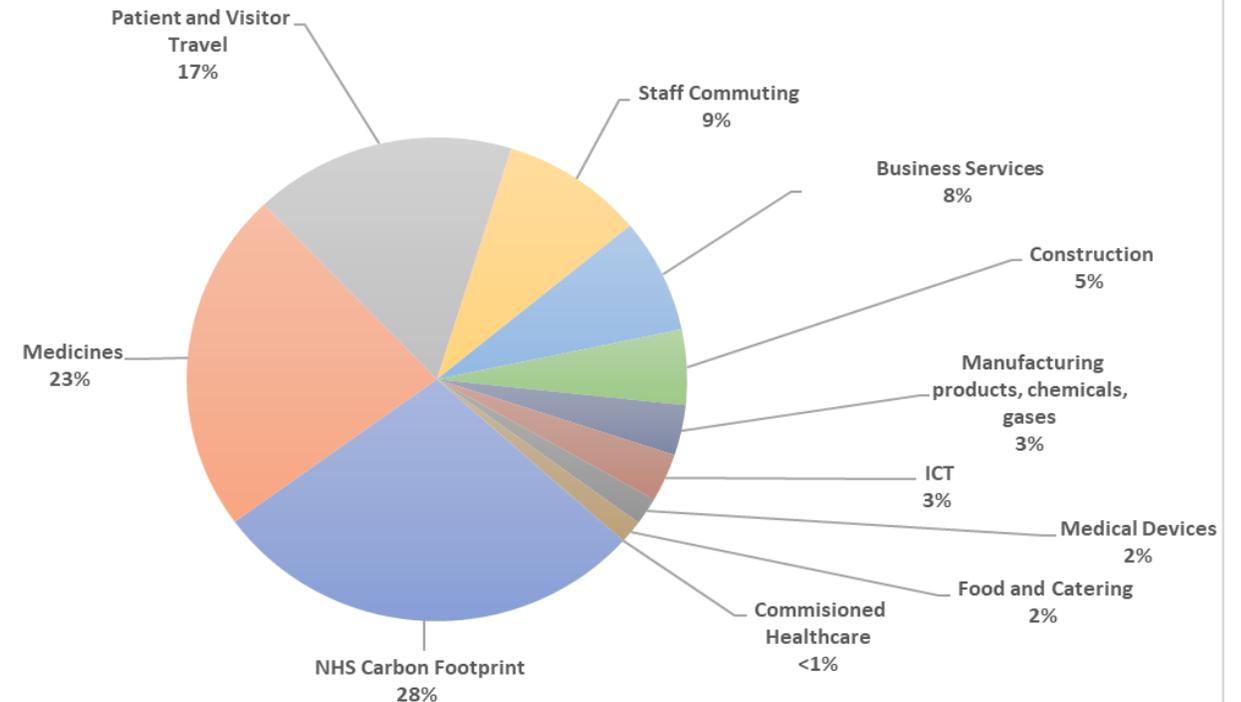
# Our Carbon Footprint

YSTH NHS Carbon Footprint 2019/20



**73% Buildings energy, 16% anaesthetic gases, fleet travel 6%  
Total 25k tonnes CO2e**

YSTH NHS Carbon Footprint Plus 2019/20



**Medicines 23 %, Building Energy 21%, Patient & Visitor Travel 17%,  
Staff Commute 9 % Total 90k tonnes**

# Key Achievements



## Corporate Approach

The Trust operates the Sustainable Development group, with an escalation route to the Trust Board.



## Asset management and Utilities

Since April 2020, all the electricity we import from the national grid is on a 100% Green Tariff.



## Asset management and Utilities

The installation of additional heat and power meters and monitoring software to support better management and control of heat and power use (funded by central government)



## Travel and Logistics

Business leases limit high emission vehicles and encourage Ultra-Low emission vehicles.



## Travel and Logistics

9 Electric vans in our transport fleet and fleet electric vehicle charge points have been introduced. (Energy Savings Trust Fleet Review commissioned - to report in 2022)



## Travel and Logistics

York Hospital Park and Ride established. E-Scooters trial is in progress at York with City of York Council, and we also operate car share and cycle to work schemes



## Adaptation

Flood defences installed at Tadcaster Health Centre. Adverse weather plan updated to include data collection opportunities to inform longer term capital planning.



## Capital Projects

Sustainable Design Guide introduced reinforcing the need to integrate BREEM Excellent standards and whole life costs for all new buildings.

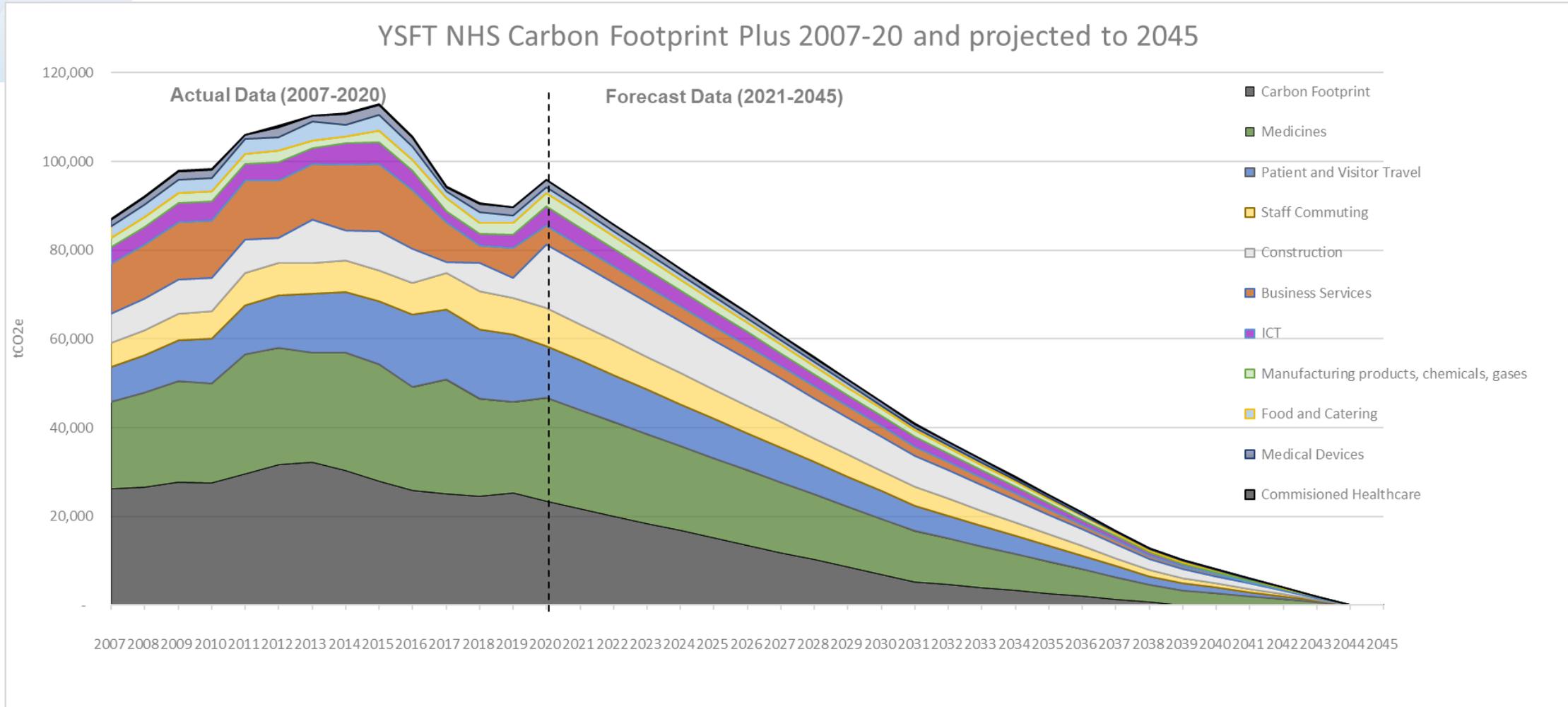
	<b>Green Space and Biodiversity</b> Scarborough Hospital car park planted and maintained to increase biodiversity.
	<b>Green Space and Biodiversity</b> £200,000 charitable funding secured for Well-being gardens, with first five to be delivered in 2021/22
	<b>Sustainable Care Models</b> The proportion of desflurane to sevoflurane (anaesthetic gases) used in surgery reduced from 38% in 2018/19 to 9% in 2019/20 and 3.5% in 2020/21. Clinical prescription of greener inhalers in local care pathway in conjunction with CCGs
	<b>Sustainable Care Models</b> 25% of out-patient appointments were non-face to face between March 2020 and February 2021 as compared to less than 2% in the February 2020.
	<b>Our People</b> The Trust has established a Green Champions network to engage staff in sustainability and carbon reduction
	<b>Sustainable Use of Resources</b> Over £6,000 in avoided costs and 3 tonnes of CO <sub>2</sub> emissions saved by use of the “Warp It” reuse portal. Introduction of a walking aids and equipment procedure that has reduced equipment losses and encouraged recycling.
	<b>Sustainable Use of Resources</b> Plastic Straws and stirrers are no longer used in the Trust (Except where clinically appropriate). Plastics pledge signed
	<b>Sustainable Use of Resources</b> Sustainability is a mandatory consideration in all new business cases and resource use and efficiency is part of all new job descriptions (since 2017)
	<b>Carbon/Greenhouse Gases</b> 20% Reduction in CO <sub>2</sub> emissions since 2015/16

# Notable Carbon Emissions Reductions

Since 2007/08 (equivalent to 1990 according to SDU report 2010)

- Emissions from grid electricity reduced by 80%
- Emissions from Grey Fleet vehicles reduced by 9%
- Emissions from nitrous oxide reduced by 5%
- Emissions from Overall NHS Carbon Footprint reduced by 11%

# Delivering a Net Zero NHS



# Notable Carbon Emissions Reductions

Since 2013/14

- Emissions from Buildings energy use reduced by 29%
- Emissions from waste sent to landfill reduced by 99%
- 40% reduction in grey fleet mileage emissions
- 18% reduction in Inhaler emissions
- Overall Carbon Footprint reduced by 27%
- Overall Carbon Footprint Plus reduced by 13%

# Notable Carbon Emissions Reductions

Since 2019/20 (includes Covid impacts)

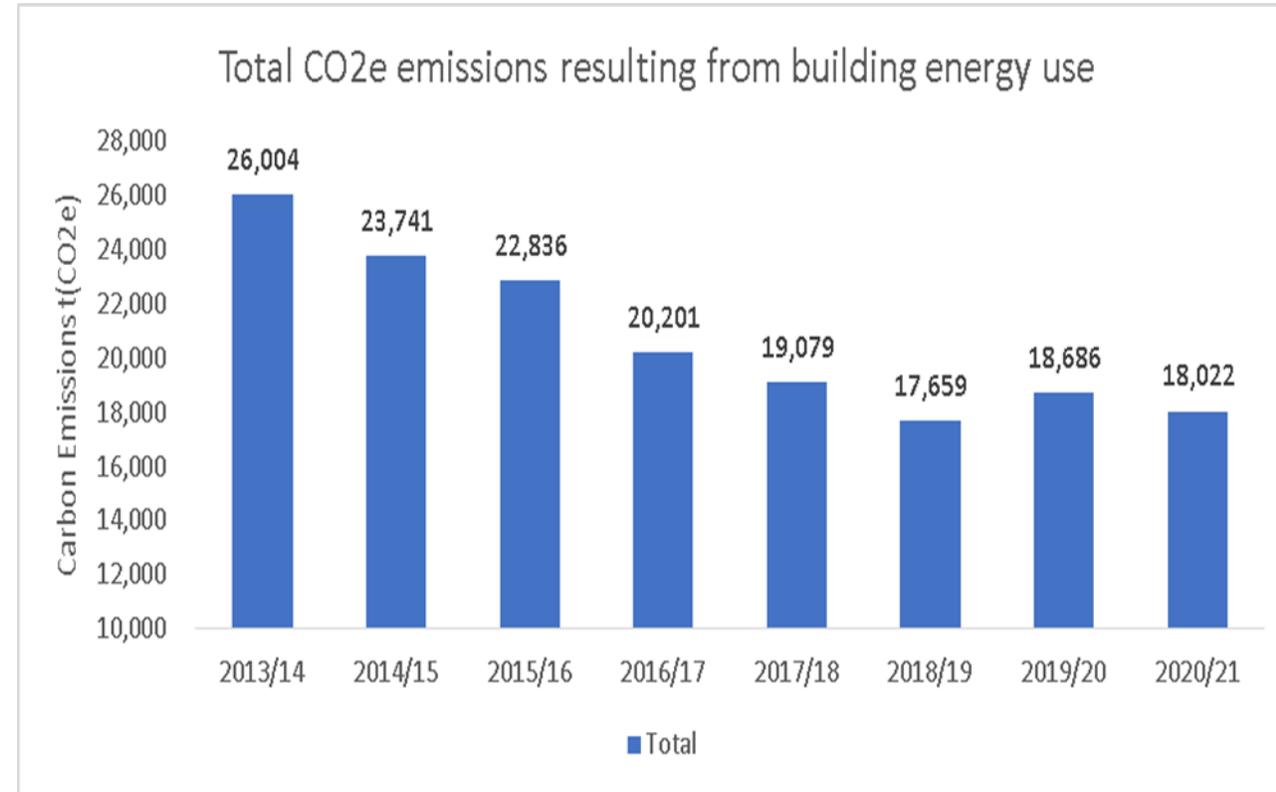
- Desflurane emissions reduced by 78%
- Emissions from isoflurane reduced by 40%
- Fleet, Pool and hire emissions reduced by 18%
- Emissions from water use and treatment reduced by 14%
- Reduction in single use plastic items in catering by 10%
- Carbon Footprint reduced by 8%

# Our Trust targets in the Green Plan

	Cut our business mileage by 20% (2023/24)		Reduce our fleet air pollution emissions by 20% (2023/24)
	Work Towards purchasing vans under 3.5 tonnes that are ULEVs or ZEVs (April 2022)		Ensure that all new staff lease, salary sacrifice and pool cars purchased/leased are ULEVs or ZEVs (April 2022)
	Reduce face-to-face outpatient appointments by 1/3 by 2023/24 through use of virtual consultations		Reduce water usage and waste
	Phase out use of oil for primary heating (2023/24)		Support move to less carbon intensive inhalers, where clinically appropriate
	Reduce avoidable use of single-use plastics		Cease use of single use plastic cutlery, plates and cups on our premises
	Reduce use of single-use plastic food and drink containers, cups, covers and lids		Maximise the rate of return for walking aids
	Work towards ensuring that all new builds and refurbishments conform to Net Zero Standards		Replace lighting with LED alternatives during routine maintenance
	Provide an annual review of adverse weather impacts and adapt premises and service delivery to mitigate risks of climate change		Reduce carbon emissions from use of gas, oil and electricity through better controls and building fabrics and implementation of renewables and heat pump technology

# Focus on Energy in Buildings -

Trust manages energy bills for over 60 sites - 73% of Trust NHS Carbon Footprint Schemes commenced, in 2013, to improve efficiency, resulted in carbon reduction at York, Scarborough and Bridlington Hospitals with the introduction of gas CHPs, improvements to motor controls, better insulation and lower energy lighting



# Focus on Energy in Buildings -

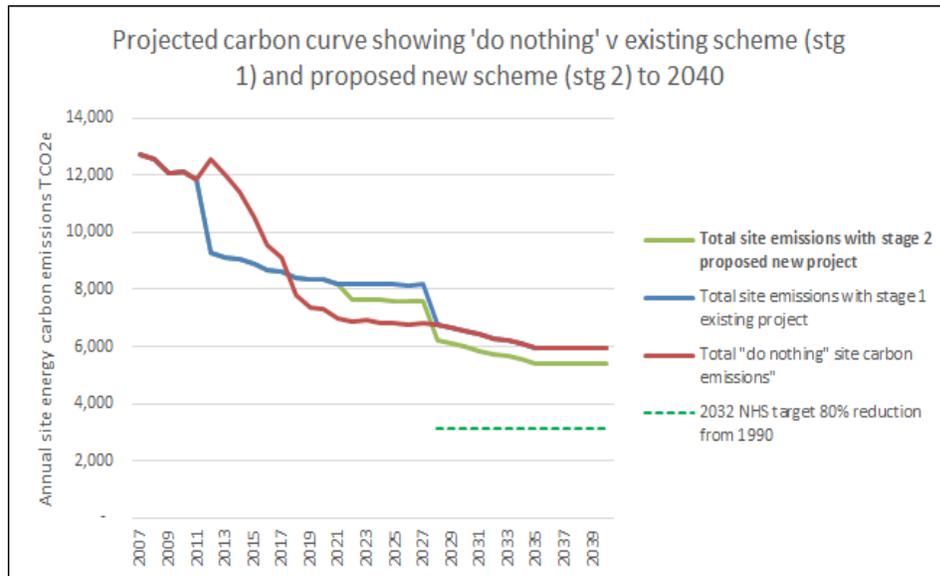
- **In 2020, York Hospital was one of 12 pilot hospital sites selected for Modern Energy Partners Programme. (BEIS)**
- **The project included a concept design, identifying how carbon emissions could be halved by 2032 by improving energy efficiency and introducing heat pump technologies to replace fossil-fuel based systems alongside solar PV and batteries**
- **The concept design advised of a need to invest £14.4million to achieve a 72% reduction by 2032 from current levels.**
- **Additional heat and electricity meters were installed in 2021, providing insights into how energy is used in public sector buildings, helping to inform national policy on decarbonising buildings.**

# Focus on Energy in Buildings -

- **Trust now developing net zero energy plan to decarbonise our buildings, focusing on largest sites**
- **PSDS grants applications submitted for York and Bridlington hospitals for heat pumps, and insulation with a mini solar farm and solar panels at Bridlington to be delivered in 2022/23.**
- **Community Renewal Funding awarded via LEP and NYCC to develop building models (or digital twins) for Scarborough and Selby Hospitals to help us improve the efficiency of existing buildings and how best to implement renewable. Proposals to be delivered in 2022.**

# Overview and Update Continued

- York still has a large carbon reduction requirement, the PSDS bid is a starting point on the journey



- The Fabric First Approach requires a programme over a number of years applying lessons learnt in previous stages

# Other on-going projects

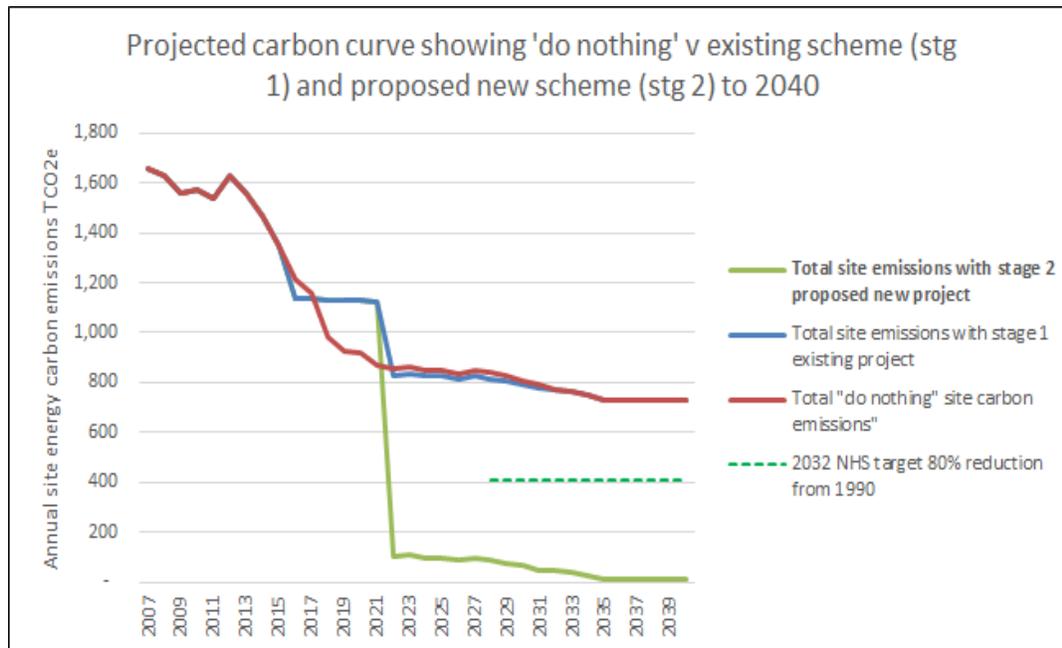
St Monica's Hospital is the Trust's smallest community hospital with 12 inpatient beds. A new energy efficiency boiler has recently been installed and is saving 6 tonnes of CO<sub>2</sub>e per annum (18% reduction in gas). Malton Hospital also had a new boiler installed and is saving 76 tonnes CO<sub>2</sub>e (37% reduction in gas use)



Scarborough Hospital is the Trust's second largest site. The Trust has been granted funding to provide a new Emergency Department. This project is in the planning stages and provides the Trust with the opportunity to produce a flagship, BREEAM Excellent department providing ongoing carbon and energy savings

# Plan Overview and Update

- Decarbonisation of Heat will be based on heat pump technologies in the timeframe required by the NHS. Decision on future of Hydrogen not due until 2026 under UK Net Zero strategy published on 19<sup>th</sup> October
- Public Sector Decarbonisation Scheme (PSDS) bid forms basis of Decarbonisation Plans of Bridlington and York Hospital
- Bridlington site will reach 80% target if the bid is accepted (see below)



# Key Information 2019/20 > 2020/21

- Inpatient admissions decreased by **29%**
- In-person Outpatient Appointments Decreased by **42%** (**16%** Decrease when including virtual outpatient appointments).
- **27%** of outpatient appointments completed remotely in 2020/21 compared to **<1%** in 2019/20
- Whole financial year impacted by Covid-19

# Biggest areas of decrease

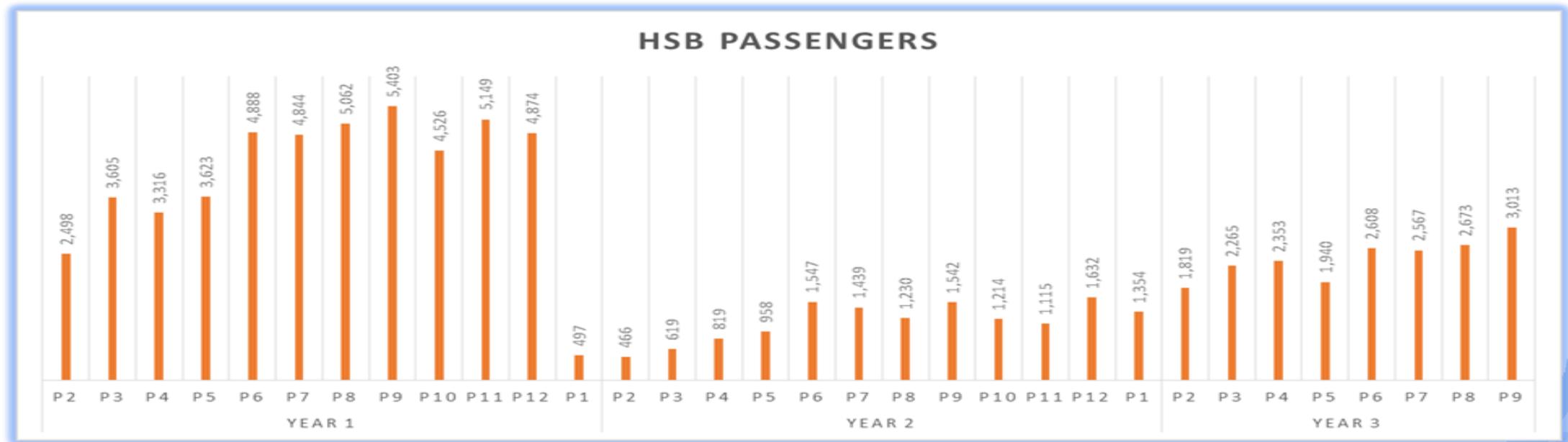
Category	% Change 2019/20-20/21	CO2e change (tonnes) 2019/20-20/21	Likely Reason(s)
Oil	<b>-99%</b>	<b>-207</b>	Purchased in bulk 2019/20
Desflurane	<b>-78%</b>	<b>-112</b>	Work with anaesthetists to encourage use of more environmentally friendly gases and reduced operations
Company Lease Vehicles	<b>-57%</b>	<b>-43</b>	Reduced inter site travel, increased utilisation of Webex, teams etc.
Pool Cars	<b>-40%</b>	<b>-70</b>	Reduced inter site travel, increased utilisation of Webex, teams etc.
Private Vehicle Mileage	<b>-30%</b>	<b>-273</b>	Reduced inter site travel, increased utilisation of Webex, teams etc.
Water	<b>-14%</b>	<b>-18</b>	Reduced site occupation
Electricity Use	<b>-6%</b>	<b>-122</b>	Decreases in office lighting, increased home working, better controls.
Gas Use	<b>-1%</b>	<b>-196</b>	
Totals of largest decreases		<b>1,041</b>	

# Biggest areas of **increase**

Category	% Change	CO2e change (tonnes)	Likely Reason (s)
Air Travel	<b>35%</b>	<b>26</b>	International Nurse Program. 96% increase from 2018/19
Owned Vehicles	<b>13%</b>	<b>17</b>	Increased deliveries due to Covid 19. Additional diesel vehicles brought in to alleviate pressure on the transport service.

# Active Travel and EVs

- Travel surveys 2016 and 2019 suggested modal shift achieved in number of areas through promotional work
- York Hospital Park and Ride Service introduced



## Next Steps – a few from 32 new targets

- Continue to develop building decarbonisation plans to 80% by 2032, net zero 2040
- Review of cycle facilities, with proposals for showers, changing areas, lockers and secure bike racks, to encourage active travel
- Increase take up of public transport and car sharing
- Review transport and travel policies to achieve faster conversion to EV (Energy Saving Trust Fleet Review report)
- Explore capture and recycling of anaesthetic gases
- Waste reduction and waste strategy refresh
- Awareness raising throughout Trust at all levels
- Green Plan review, monitoring and annual reporting
- Understand contributions of plans to net zero targets