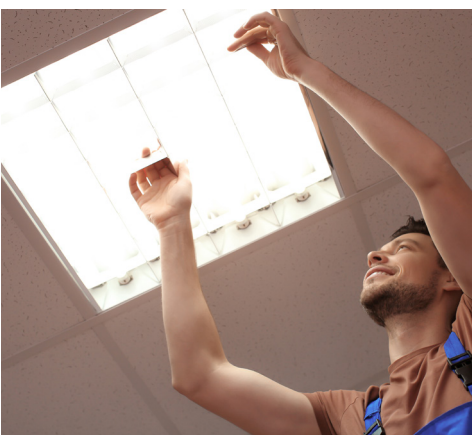




**NHS**

**Property Services**



# NHS Property Services Greener NHS 2020/21 Review

A look back at year two of our three-year plan

April 2021

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## TEAM

The team consists of:

- **Cameron Hawkins**, Head of Energy and Environment
- **Nick MacDonald-Smith**, Principal Energy and Environment Manager
- **Esther Ukala**, Environmental Compliance Manager
- **Najaah Jamalkhan**, Energy and Environment Analyst
- **Gabriele Gessani**, Energy and Environment Analyst

With support from:

- **Richard Davies**, Service Assurance Manager for waste
- **Corporate Social Responsibility** team

# Overview

NHS Property Services (NHSPS) seeks to fulfil the UK Government and NHS target of being net zero carbon by 2040 while also delivering cost efficiency for utilities, reducing the environmental impact of our operations and ensuring environmental compliance.

In 2019/2020, the NHSPS Energy and Environment team launched a three-year plan to gather the data and information required to produce an Energy and Environment strategy to drive a 'Greener NHS' and target net-zero carbon.

The plan is focused on achieving eleven deliverables, split into four main headings - information, documentation, efficiency and environment - which combined, have a total of 200 actions.

Some of the deliverables have clear actions relating to reducing our carbon emissions while other deliverables are still in the discovery phase with actions focused on identifying missing information and how to move into the implementation phase.

As the team moves into year three of the three-year plan, this review outlines some of the progress from the past year, current challenges and next steps.

## Our current position

Currently, we spend approximately £45 million per year on utilities (electricity, gas and water) for a carbon footprint of 104,244 tCO<sub>2</sub>e. Of this, electricity contributes 35,886 tCO<sub>2</sub>e, and gas contributes 68,358 tCO<sub>2</sub>e. While utilities are an unavoidable cost, they can be actively managed, with NHSPS being able to influence 95% of this spend.

With £16.6m and 14,300 tCO<sub>2</sub>e saved over the last two years, last year has proven the most successful with £10.6m and 8,600 tCO<sub>2</sub>e saved.

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# Detail of scope and services

The eleven deliverables fall under four main headings.

INFORMATION	DOCUMENTATION	EFFICIENCY	ENVIRONMENT
<p><b>Data</b></p> <p>What data to collect, from where and its hierarchy.</p>	<p><b>Strategy</b></p> <p>How we deal with the wider business and our long-term goals.</p>	<p><b>Engagement</b></p> <p>Programs and resources for upskilling and self-delivery at site.</p>	<p><b>Protection</b></p> <p>Environment protection, adaptation and biodiversity.</p>
<p><b>Reporting</b></p> <p>Benchmarking, analysis and data request.</p>	<p><b>Compliance / Risk / Certification</b></p> <p>Legal requirements for reporting and surveys.</p>	<p><b>Projects</b></p> <p>Project works and focused efficiency measures.</p>	<p><b>Transport</b></p> <p>Improving our movement of people.</p>
	<p><b>Processes</b></p> <p>Our standard approach to daily tasks. Monitoring and verification.</p>	<p><b>Supply</b></p> <p>How we procure, invoice and self produce. Contract management.</p>	<p><b>Waste</b></p> <p>KPIs and data requests.</p>

The deliverables align NHSPS with the NHS Long Term Plan which mentions the strategic importance of sustainability in delivering efficiency, whilst improving the NHS and supporting the communities in which it operates.



# Information

The installation of over 1,000 smart meters in the last year has seen data accuracy increase with more than 90% of consumption from electricity and gas covered by automatic meter reads.

By the end of year two, we provided over 200,000 data points covering electricity, gas, water and waste to occupiers to complete their sustainability and ERIC reporting.

We launched a proactive campaign to get occupiers to register with us via [utilities@property.nhs.uk](mailto:utilities@property.nhs.uk), so we could provide this data to them in advance of completing their reporting, which doubled the number of participants.

**The end of year two saw over 200,000 data points provided to occupiers**

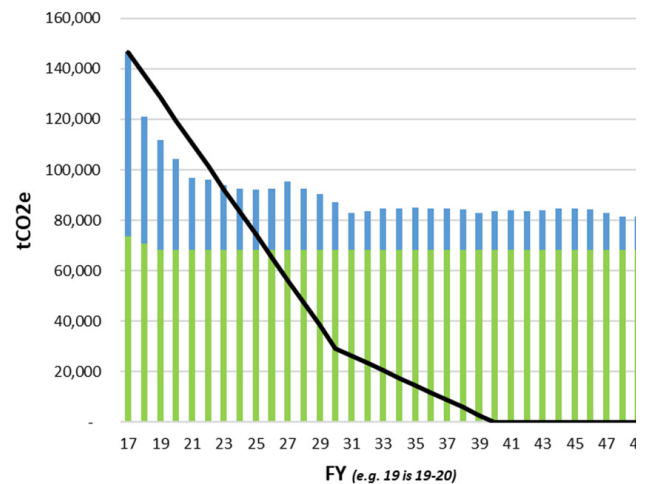
The increase in data capture and reporting has also allowed us to establish an initial carbon footprint. Vehicle emissions are being validated with initial numbers suggesting that they will be less than 2% of overall emissions. Transport, liquid fuels, water usage, embodied carbon and emissions from third parties are important aspects of our carbon footprint, but due to the small contribution, we have prioritised emissions from electricity and gas to establish the base year and maintain accuracy.

Due to NHSPS being established in 2013, getting an accurate 1990 baseline is difficult. Therefore, our first carbon budget is established from 2017, where we have confidence in the numbers presented.

Installation of over **1,000 smart meters** in the last year



**Carbon Emissions Utilities & Carbon Budget**



The above graph shows current emissions up to 31 March 2021, with a 'do nothing' scenario going forward, highlighting the reductions in carbon emissions needed in the 'Carbon Budget' line and the impact that the slowest decarbonisation of the electricity grid will have on our emissions.

Year three will see further improvements in data accuracy with water and travel emissions being included in the carbon footprint. A strategy to incorporate sub-meter data and more regular reporting to occupiers will further increase transparency on where and when utilities are being used.

# Documentation

We've developed multiple strategies to meet NHS and Government targets, with some of them already implemented and others scoped out. For example, our procurement strategy has been implemented, we've developed an Environmental Management System (EMS) to provide a structured methodology to managing our environmental impact, and we've scoped out our approach to electric vehicles within cross functional working groups.

The provision of energy performance certificates, display energy certificates and air conditioning surveys is at an all time high, with a process to ensure the Minimum Energy Efficiency Scheme (MEES) is adhered to. The EMS has also integrated the Environmental Legal Register into business processes, allowing for monitoring and alerts of alterations to legislation and government guidance documents to prompt the updating of policies and processes.

Continuous improvement is something that drives the team and year two has seen a large-scale improvement in our processes.

Year one was predominately used to understand what processes were in place already and how they fitted in with the organisation.

In year two, we streamlined multiple internal processes for better budgeting, cost/consumption reporting and validation of the savings we have achieved. This included business cases for energy efficiency projects and how to implement the projects.

Year three will see further expansion of the EMS into adaptation and training; giving staff and occupiers the necessary information and processes for local implementation at scale, instead of the current centre-driven approach.



# Environment

Establishing the Environmental Management System (EMS) was a key success of year two. Working to the framework of ISO:14001, the system aims to provide a structured methodology to managing our environmental impact. This includes legal requirements, processes, assessment and reporting. Establishing the principals of what will be our Adaptation Strategy and Policy will allow these documents to be published in year three.

We developed a cross-functional working group for electric vehicles (EVs) with representation across the business from finance, asset management, technology, operations and communications. While we are focusing on enabling our own fleet of 900 vehicles and the service vehicles of our occupiers, we will also seek to establish a commercial model for charging points that will facilitate more of our occupiers to make the transition to EVs.

**Year three will contain several guidance documents, policies and key supplier selections.**

We are proud that more than 98% of our waste does not go to landfill. However, we recognise the importance of more recycling, the need for more communication with occupiers on using the correct bins for their waste and expanding our removal of single use plastics and furniture recycling. All of these will deliver both cost and environmental benefits to the NHS.



Greater than  
**98%** of waste  
**not going to**  
landfill

# Efficiency

In year one, we re-established our Engagement Programme with NHSPS colleagues across the regions, delivering £1.2m and 5,000 tCO<sub>2</sub>e savings for the NHS. Year two built on this to deliver £2m and 6,760 tCO<sub>2</sub>e of savings. The delivery of training to more staff and targeting key sites with defined actions, allowed the 'low / no cost' programme to deliver substantial benefits and continue to open the dialogue on how we can work with our occupiers to reduce their energy and environmental costs.

We established an energy efficiency fund to allow for investment into schemes that sat outside of other capital works (customer schemes and back log maintenance). The year one fund of £1m increased to £2.3m at the start of year two, and grew again to £4.2m as the impact of COVID-19 delayed other programmes and with a pipeline of energy savings projects ready to go. LED installations was the primary project, with 39 sites receiving LED upgrades and an expected saving of £1.5m. We also invested in Building Management System (BMS) upgrades, that at one site saved 22%, along with sub-metering and renewables.

Our procurement strategy continues to provide benefits, after an 8% (£3.2m) cost reduction in year one helped reduce the impact of the increase in the Government's Climate Change Levy. In year two, the flexible procurement strategy expanded to include 100% renewable electricity (REGO backed) and provide a 12% (£6.2m) cost reduction. Large scale consolidation of water suppliers saw historical debt flushed out and greater transparency of cost and usage data. For two years running, actuals were below budget.


Year three will see a feasibility study into Power Purchase Agreements and how this could benefit the whole NHS by providing 'off balance sheet' renewable energy. A tender for a single water supplier will see leak detection, accurate costs and consumption data and the insourcing of a third party will allow further expansion of both the 'engagement' and 'project' deliverables.

Our net-zero carbon strategy will continue off the back of the carbon footprint work, with the removal of gas and liquid fuels being a key priority.

We will establish performance standards to establish how we will implement net-zero in everyday deliverables through to full hospital builds. Our Healthy Places programme, which aims to transform and improve our buildings to enable our customers to deliver excellent patient care, will form the mechanism for these projects.

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# More information

To view our pledges, webinars, news and insights, and to sign up to receive our latest Greener NHS content, visit our website:

 [www.property.nhs.uk/greenerNHS](https://www.property.nhs.uk/greenerNHS)

If you have any data requests or want to register to receive data updates, please email:

 [Utilities@property.nhs.uk](mailto:Utilities@property.nhs.uk)

If you have any general queries, please send them to:

 [Energyandenvironment@property.nhs.uk](mailto:Energyandenvironment@property.nhs.uk)