The NHS leading by example

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NHS impacts

• 21.4 Mt of CO2 emissions cost society up to £2bn p.a. in climate change damage
• Each year health related air pollution cost society £345m and 6,440 QALYs
• 590kt Waste, 15% to landfill and 22.7% plastic

Our impacts are often concentrated closest to the most vulnerable, potentially contributing to health inequalities.
Key Milestones

• Carbon Reduction Strategy 2009
• Route Map for Sustainable Health 2010
• Sustainable Development Strategy 2014-2020
• Adaptation Report 2014, 2019
• Health Checks 2015-2018
• Natural Resources Footprint 2018
• Long Term Plan and Implementation Strategy 2020-2025
Progress

- 18.5% CO2e since 2007 whilst activity increased by 20%+
- Water footprint down by 21% since 2010
- 71% SDMPs in organisations
- Sustainability assessments, tools and reporting
- Integrated - NHS Contracts, NHS Constitution
- Delivery Plans for Carbon, Air Pollution, UoR, Plastics
## Targets

<table>
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<tr>
<th>Resource / impact</th>
<th>UN SDG link</th>
<th>Baseline</th>
<th>5 year reduction</th>
<th>10 year reduction</th>
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| Carbon            | ![13 Climate Action](image1.png) | 1990-30.47  
2017- 21.37 Mt | 51% (on 1990) | 57% (on 1990) |
| Waste             | ![12 Responsible Consumption and Production](image2.png) | 15% NHS Trust waste to landfill (4,000 tonnes) | 50% (to 7.5% of all waste) | 100% (to 0% of all waste) |
| Air Pollution     | ![3 Good Health and Well-being](image3.png) ![11 Sustainable Cities and Communities](image4.png) | PM2.5-35t  
NOx-731t  
EV chargers-1,305 | Chargers-2,600 | PM2.5- 36%  
NOx-48%  
Chargers- |
NHS, public health and social care system (HSC) wedges to 2050

Baseline
- System demand reduction, from public health co-benefits of mitigation*
- Shift to less intensive models of care*
- Reduced anaesthetic gas emissions*
- Reduced Travel (Business, fleet, patients and commuting)*
- Reduced anaesthetic gas emissions*
- Shift from propellant inhalers*
- Reduced Travel (Business, fleet, patients and commuting)*
- Buildings energy efficiency*
- Avoided emissions from planned adaptation and resilience.
- International carbon reductions affecting Health and Social Care supply chain
- National Electricity decarbonisation*
- Projection 1- Do Nothing
- Projection 3- HSC embedding best practice and leveraging policy

Carbon emissions (ktCO2e)
- 34% by 2020
- 51% by 2025
- 57% by 2030
- 80% by 2050

Projection 2- HSC utilising National policy/govt. interventions only

Projection 3- HSC embedding best practice and leveraging policy

National Electricity decarbonisation*

Public sector financial challenge

Health and Social Care Sector historic emissions

Gap

National vehicle efficiency

Climate Change Act Trajectory
RRV solar charging

South Central Ambulance Service NHS Foundation Trust

Action
The trust invested in installing solar panels on their rapid response vehicles to provide renewable energy to power equipment within the vehicle. They also piloted four electric rapid response vehicles (RRVs).

Results
The trust saw significant annual saving of nearly £50k, in addition to reduced fuel consumptions, more reliable vehicles reducing down time and a reduced replacement of batteries being charged by the panel. The pilot saved £17k per vehicle over 4 years. Soft feedback from drivers has also been positive. A longer term roll out of the vehicles could save the Trust over £2.5m.

The vehicles also reduce air pollution and the impact on health. A typical diesel RRV costs the NHS around 3p per mile in air pollution impacts to health and society – these electric RRVs mitigate nearly all this impact. Petrol and diesel RRVs in the NHS typically do over 37 million miles per year.
North East Ambulance Trust

Action
The trust installed telematics technology in 50 vehicles, which included speed limiters when not on emergency response.

Results
The trust cut accident rates and improved their patients’ experience. They also saved 3 million litres of fuel, which would have cost £100k, and they cut 250 tonnes of CO₂ emitted per year, improving local air quality.
Cornwall Partnership NHS Trust

Action
The Trust invested in 15 electric and 57 hybrid pool cars and solar panels at two sites. A grant received from the Department of Health in 2014 catalysed the investment.

Results
The Trust has saved £325,000 per year and reduced its carbon footprint by 450 tonnes. The solar panels generate more electricity than the pool cars consume, making the 80,000 miles they travel every year truly zero-emission. The pool car fleet has one of the lowest average CO₂ tailpipe emissions (73.5g/km) in the country and they have been awarded “Go Ultra Low Company” status. Recently, the Trust has worked with Energy Saving Trust to review grey fleet use and identify where further EVs would be practical and cost-effective.
What is a Clean Air Hospital?

A Clean Air Hospital works to improve air quality outside and inside the hospital, provides advice to help protect staff, patient and public health from air pollution and works with others to champion the case for clean air locally and nationally.
When
The winds of change blow,
Build windmills
To make them go faster
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