



THE STATE HOSPITALS BOARD FOR SCOTLAND

ANNUAL CLIMATE EMERGENCY AND SUSTAINABILITY REPORT

01 April 2021 – 31 March 2022

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Introduction

This is The State Hospitals Board for Scotland's first annual Climate Emergency and Sustainability Report.

The planet is facing a triple crisis of climate change, biodiversity loss and pollution as a result of human activities breaking the planet's environmental limits.

The World Health Organisation recognises that climate change is the single biggest health threat facing humanity. Health organisations have a duty to cut their greenhouse gas emissions, the cause of climate change, and influence wider society to take the action needed to both limit climate change and adapt to its impacts. More information on the profound and growing threat of climate change to health can be found here: www.who.int/news-room/fact-sheets/detail/climate-change-and-health

The State Hospitals Board is very much an integral part of NHS Scotland and one of eight National Boards providing specialist services. It has a unique function in Scotland of providing high quality forensic mental health assessment, care, treatment and rehabilitation for male patients who require a high secure environment. The Hospital has 140 beds and admits patients from Scotland and Northern Ireland. It is based in South Lanarkshire and employs around 650 people.

Leadership and governance

The Board Sustainably Champion is Cathy Fallon, with the Executive lead being David Walker, Director of Security, Estates and Resilience.

The Board and its committees receive regular assurance reporting taking strategic leadership and oversight.

Within organisational governance, the Climate Change and Sustainability Group has the lead responsibility and is accountable to the Security, Resilience, Health and Safety Oversight Group through the Director of Security, Estates and Resilience. Its purpose is to ensure that the principles of sustainability are embedded in The State Hospital's strategic programme. The Group will ensure an integrated approach to sustainable development, harmonising environmental, social and economic issues.

The Group provides assurance to the Security, Resilience, Health and Safety Oversight Group that robust arrangements are in place for monitoring and review of the effectiveness of management arrangements within the Board.

Corporate and Operational Management Teams are responsible for operational delivery of services. The Climate Change and Sustainability Group will focus on issues of strategic or corporate significance, with reports by exception from CMT as required.

The Group are currently reviewing our Corporate Strategy, organisational values, mission statement, vision and principles that explicitly reflect our commitment to all aspects of sustainability.

Greenhouse gas emissions

The State Hospital aims to become a net-zero organisation by 2040 for the sources of greenhouse gas emissions set out in the table below. The table sets out the amount of greenhouse gas produced annually by The State Hospital.

Source	Description	Amount of greenhouse gas (tonnes of CO2 equivalent)			Percentage change since 2019/20
		2019/20	2020/21	2021/22	2021/22
Building energy use	Greenhouse gases produced in providing electricity and energy heat for NHS buildings	2295.4	2014.4	1647.8	-28.2%
Non-medical F-gas use	Greenhouse gases used for things like refrigeration and air conditioning	Not yet available	Not yet available	Not yet available	Not yet available
Medical gases	Greenhouse gases used in anaesthetics - nitrous oxide (N2O), Entonox (which contains nitrous oxide), desflurane, sevoflurane and isoflurane	Not applicable – no anaesthetic gases in use	Not applicable – no anaesthetic gases in use	Not applicable – no anaesthetic gases in use	Not applicable – no anaesthetic gases in use
Metered dose inhaler propellant	Greenhouse gases used as a propellant in inhalers used to treat asthma and chronic obstructive pulmonary disorder (COPD)	Not available	Not available	3.5	No 2019/20 data to use in calculation
NHS fleet use	Greenhouse gases produced by NHS vehicles	Not available	8	19.3	No 2019/20 data to use in calculation
Waste	The greenhouse gases produced by the disposal and treatment of waste produced by the NHS	38	43.7	37.4	-1.6%
Water	The greenhouse gas produced from the use of water and the treatment of waste water	5.6	1.4	3.6	-35.7%
Business travel	Greenhouse gases produced by staff travel for work purposes, not using NHS vehicles.	Not yet available	Not yet available	Not yet available	Not yet available
Sub-Total		2339	2067.5	1711.6	-27%
Carbon sequestration	The amount of carbon dioxide captured per by woodland, trees, grassland and shrubs growing on NHS grounds.	Not yet available	Not yet available	Not yet available	Not yet available
Greenhouse gas emissions minus carbon sequestration		Not yet available	Not yet available	Not yet available	Not yet available

National Sustainability Assessment

NHS Scotland has developed a National Sustainability Assessment Tool (NSAT) which all Health Boards use on an annual basis to measure their progress across sixteen different areas of sustainability.

In 2021/22, The State Hospital scored 36% overall. Our three highest scoring areas were:

- Our Planet, Procurement (52%),
- Governance & Policy, Greenspace (50%),
- Our People, Welfare (49%).

Our three areas with the most room for improvement were:

- Our People, Communities (20%),
- Our Planet, Greenhouse Gases (20%),
- Our NHS, Active Travel (20%).

Climate Change Adaptation

The climate is changing due to the greenhouse gases already emitted into the atmosphere. While efforts to reduce the rate and scale of climate change continue, we must also adapt to new conditions we are facing.

The changing climate is increasing risks for health and health services. More information on these risks in the UK can be found in the UK Climate Change Committee's Health and Social Care Briefing available here: www.ukclimaterisk.org/independent-assessment-ccra3/briefings/

What have we done to better understand the impact of climate change on The State Hospital and the people and places we serve?

The State Hospital have completed and submitted to NHS Assure, an initial Climate Change Risk Assessment. This has allowed us to understand the risks and produce accompanying Climate Change Adaption Plans.

What are we doing to build resilience and prepare for the increasing risks from climate change to The State Hospital and the people and places we serve?

The State Hospital are currently working with a range of partners locally and nationally to reduce carbon emissions and assess options for sustainable travel to our rural location.

Building Energy

We aim to use renewable heat sources for all of the buildings owned by The State Hospital by 2038. The State Hospital site has 15 buildings including patient accommodation, off ward therapy areas, offices, carers' facilities, security buildings and estates buildings.

In 2021/22, The State Hospital used 9,389,765 kWh of energy. This was a decrease 4.5% since the year before.

In 2021/22, The State Hospital generated 1,895,780 kWh of energy from renewable technologies.

In 2021/22, 1647.8 tonnes of CO2 equivalent were produced by The State Hospital in use of energy for buildings. This was a decrease of 18% since the year before.

What did we do last year to reduce emissions from building energy use?

There was a greater focus to use the biomass boiler as the primary heat source for the site instead of LPG.

What are we doing this year to reduce emissions from building energy use?

We are in the process of receiving a completed Net Zero Route Map that will inform the Board of the core challenges to the decarbonisation of the site. This will include common themes for 'quick wins' in terms of energy savings and highlight pathways to approach largescale power and thermal emission reductions.

Sustainable Care

The way we provide care influences our environmental impact and greenhouse gas emissions. NHS Scotland has three national priority areas for making care more sustainable – anaesthesia, surgery and respiratory medicine.

Anaesthesia and surgery

Greenhouse gases are used as anaesthetics and pain killers. These gases are nitrous oxide (laughing gas), Entonox (which contains nitrous oxide) and the "volatile gases" - desflurane, sevoflurane and isoflurane.

The State Hospital does not have any emissions from these gases due to the nature of patient care that takes place within the Board. The Board has no operating theatres or treatment rooms where anaesthetics could be administered.

Respiratory medicine

Greenhouse gases are used as a propellant in metered dose inhalers used to treat asthma and COPD. Most of the emissions from inhalers are from the use of reliever inhalers – Short Acting Beta Agonists (SABAs). By helping people to manage their condition more effectively, we can improve patient care and reduce emissions. There are also more environmentally friendly inhalers such as dry powder inhalers which can be used where clinically appropriate.

We estimate that emissions from inhalers in The State Hospital were 3.5 tonnes of CO2 equivalent.

Travel and Transport

Domestic transport (not including international aviation and shipping) produced 24% of Scotland's greenhouse gas emissions in 2020. Car travel is the type of travel which contributes the most to those emissions.

NHS Scotland is supporting a shift to a healthier and more sustainable transport system where active travel and public transport are prioritised.

What did we do last year to reduce the need to travel?

As a single site Board there is no requirement for travel across various sites. Currently the level of business travel within the Board has to be quantified. The need certain for staff to travel to work has been reduced as the Board implement flexible home working.

What did we do last year to improve active travel?

No specific items to report for last year.

What did we do last year to improve public and community transport links to NHS sites and services?

No specific items to report for last year.

What are we going to do this year to reduce the need to travel?

Active Travel has been incorporated as an agenda item for Climate Change and Sustainably Group meetings. We are scoping options to improve travel arrangements for staff that includes cycle to work schemes and hub pick up points for staff working shifts.

What are we going to do this year to improve active travel?

Active Travel has been incorporated as an agenda item for Climate Change and Sustainably Group meetings. Due to the remote location of the site, the Board will look to explore processes to make travel from various locations local or city locations more sustainable and reduce the need for staff, visitors and volunteers to use their own cars

What are we going to do this year to improve public and community transport links to NHS sites and services?

Active Travel has been incorporated as an agenda item for Climate Change and Sustainably Group meetings.

We are working to remove all petrol and diesel fuelled cars from our fleet by 2025. The following table sets out how many renewable powered and fossil fuel vehicles were in The State Hospital fleet at the end of March 2022.

	Renewable powered vehicles	Fossil fuel vehicles	Total vehicles	Percentage renewable powered vehicles
Cars	1	0	1	100%
Light Commercial Vehicles	2	5	7	29%
Heavy vehicles	0	2	2	0%

The following table sets out how many bicycles and eBikes were in The State Hospital's fleet at the end of March 2022.

	Number
Bicycles	0
eBikes	0

Greenspace and Biodiversity

In addition to health benefits for patients and staff, investment in greenspace around hospitals and healthcare centres helps tackle climate change and biodiversity loss.

What did we do last year to improve our greenspace and increase biodiversity?

No specific work took place last year to improve our greenspace and biodiversity.

What are we doing this year to improve our greenspace and improve biodiversity?

Work for this year will require to be identified and taken forward by the Climate Change and Sustainability Group and will include external funding (already committed) for gardens and tree planting across the site.

Sustainable Procurement, Circular Economy and Waste

Earth Overshoot Day marks the date when our demand for resources exceeds what Earth can regenerate in that year. In 2020, the Global Earth Overshoot Day was 22nd August. In 2021, it was 29th July. The current global trend shows a concerning picture of over consumption. For the UK, the picture is more worrying. In 2022, the UK's Earth Overshoot Day was 19th May. The current level of consumption of materials is not sustainable, it is the root cause of the triple planetary crises of climate change, biodiversity loss and pollution.

We aim to reduce the impact that our use of resources has on the environment through adopting circular economy principles, fostering a culture of stewardship and working with other UK health services to maximise our contribution to reducing supply chain emissions to net-zero by 2045.

What did we do last year to improve the environmental impact of the goods and services we buy?

All regulated tenders have a Procurement Strategy document which includes a sustainability assessment using the Scottish Government Sustainability test. For non-regulated Quick Quotes we also assess sustainability as part of the Invitation to Quote process.

What are we doing this year to improve the environmental impact of the goods and services we buy?

Establishment of a process to ensure that whole life costing and life cycle impact mapping are a core part of all our Board's procurement.

We want to reduce the amount of waste we produce and increase how much of it is recycled. The table below provides information on the type of waste we produce.

Type	2020/21 (tonnes)	2021/22 (tonnes)	Percentage change
Waste to landfill	96	79	-17.7%
Waste to incineration	Not Applicable	Not Applicable	Not Applicable
Recycled waste	33	26	-21.2%
Food waste	Not Recorded	Not Recorded	Not Recorded
Clinical waste	3	5	+66.7%

What did we do last year to reduce our waste?

We continued to promote the recycling of waste at source within each department / building.

What are we doing this year to reduce our waste?

Work for this year will require to be identified and taken forward by the Climate Change and Sustainability Group.

Environmental stewardship

Environmental stewardship means acting as a steward, or caretaker, of the environment and taking responsibility for the actions which affect our shared environmental quality. This includes any activities which may adversely impact on land, air and water, either through the unsustainable use of resources or the generation of waste and pollution. Having an Environmental Management System (EMS) in place provides a framework that helps to achieve our environmental goals through consistent review, evaluation, and improvement of our environmental performance.

What did we do last year to improve our environmental performance?

A National Environmental Management System (EMS) was introduced and available to all Boards. Two members of the Estates Department undertook the system training, and have been working to populate the EMS with relevant data for The State Hospital.

What are we doing this year to improve our environmental performance?

A continuation of populating the EMS with relevant data to allow action plans to be produced.

Sustainable construction

Where there is a need for new healthcare facilities, we want both the buildings and grounds to be safe, nature-rich, sustainable, resilient and accessible. The State Hospital is currently not working on any building projects.

Sustainable Communities

The climate emergency undermines the foundations of good health and deepens inequalities for our most deprived communities. The NHS touches every community in Scotland. We have a responsibility to use our abilities as a large employer, a major buyer, and one of the most recognised brands in the world – an ‘anchor’ organisation – to protect and support our communities’ health in every way that we can.

What are we doing to act as an anchor institution for our local community?

No specific work has taken place regarding the local community.

What are we doing to improve the resilience of our local community to climate change?

We will scope the possibility with our local authority partner to implement a Local Heat and Energy Scheme.

Conclusion

Over the last three years there has been a marked increase and focus nationally for Boards to report on various aspects of Climate Change and Sustainability. The State Hospital does not currently have a dedicated resource for Climate Change and Sustainability, which has proved very challenging over the last year to maintain significant progress with all aspects of the strategy that require to be reported and developed.

Over the last year the Climate Change and Sustainability Group has been reviewed to facilitate a more focussed approach which has included a refresh of the membership, agenda and terms of reference.

The State Hospital have received a Net Zero Route Map Carbon Emission Baseline Report and are now progressing with a Concept Design Workshop, which will review at a high level the main interventions to be taken forward for techno economic modelling.

Further focus for this year will be to implement a dedicated resource for Climate Change and Sustainability for the Board. We will continue to address energy reduction measures with the installation of LED lighting and explore options in partnership to implement sustainable transport initiatives and Local Heat and Energy Schemes.