



ST VINCENT'S  
HEALTH NETWORK  
SYDNEY

# Environmental Sustainability Plan 2024–2026

Caring for our future.  
**Always.**



## Acknowledgement of Country

St Vincent's Health Network, Sydney (SVHNS) acknowledges the Traditional Owners of the land in which we provide care, the Gadigal & Burramattugal people of the Eora Nation and the Dharug Nation, whose cultures and customs have nurtured, and continue to nurture, the land since men and women awoke from the great dream.

We honour the presence of these Ancestors who reside in the imagination of this land and whose irrepressible spirituality flows through creation.

We pay respects to Elders Past and Present as we walk and work together in the journey of improving Aboriginal and Torres Strait Islander health outcomes.

## Statement of Commitment

Travelling ancient spirits from the Dreaming,  
Mould and craft the landscape,  
Forging rivers, mountains and valleys.

Whispers of an ancient voice,  
Sweep across the plains,  
Advising us to tread softly.

The earth beneath the soles of our feet,  
Soft like the cushioned steps of our mammals,  
All deserving of tender care.

In harmony, Aboriginal people coexisted,  
Dancing with nature in equilibrium and health,  
Taking only what was needed.

For eons, we weave ourselves into this sacred soil,  
A vital link with our bodies, health, communities and song lines,  
A mirror reflecting our way of life.

The balance has tipped, we walk into a path of destruction,  
Defying ancestral wisdom, looking away,  
Deaf to the scars and cries of the land.

Climate change rears its head,  
Floods and fires scorch and dampen, as heat takes control,  
Our people's health bears the burden.

Omnipotent yet vulnerable, she cries out in pain,  
Craving nurture and progress toward restoration,  
A plea for healing care.

Gratitude is owed for her boundless gifts,  
A commitment is needed to reconnect, restore,  
For the health of current and future generations.

We pledge to stand together,  
Guardians of this scared ground,  
Always was, always will be, Aboriginal land.

Written collaboratively by an Aboriginal and a non-Aboriginal staff member of  
St Vincent's Hospital, Sydney – Matthew Shields and Annika Bowen

# Foreword

Climate change is a major risk for human health, with immediate health risks relating to extreme weather events, changes in infectious diseases patterns, and detrimental effects on food and water security.

The impacts of climate change are likely to place increased pressure on Australia's health system and will exacerbate existing health inequities, with vulnerable groups and rural communities most affected.

Accordingly, the health and care sector has a special responsibility to 'first do no harm'. At St Vincent's Health Network Sydney (SVHNS) we believe that responsibility extends to our environmental impact, and we have a practical and a moral responsibility to strive for net zero emissions as a fundamental priority.

Mitigating the impact that healthcare has on our environment has long been a vexing issue. As high volume consumers of single use medical equipment, considerable energy and water usage, hazardous waste generation and numerous other environmental hazards specific to the hospital sector, we understand that we have significant work to do in reducing our carbon footprint.

This plan sets out our commitment to achieving net zero emissions in line with New South Wales (NSW) Health and St Vincent's Health Australia's (SVHA) plans and key performance indicators (KPIs). In doing so, we are endeavouring to improve the social, economic and environmental wellbeing of our community. Designed in collaboration with our people who will shape and support the actions required to achieve our goals, this plan maps out our intentions to embed a culture of environmental sustainability as everyone's responsibility.

By implementing innovative and tangible change, measuring our impact and recognising our achievements, we aim to create a future where safe and effective healthcare is delivered with minimal cost to our natural environment.

**Anna McFadgen**  
CEO, SVHNS

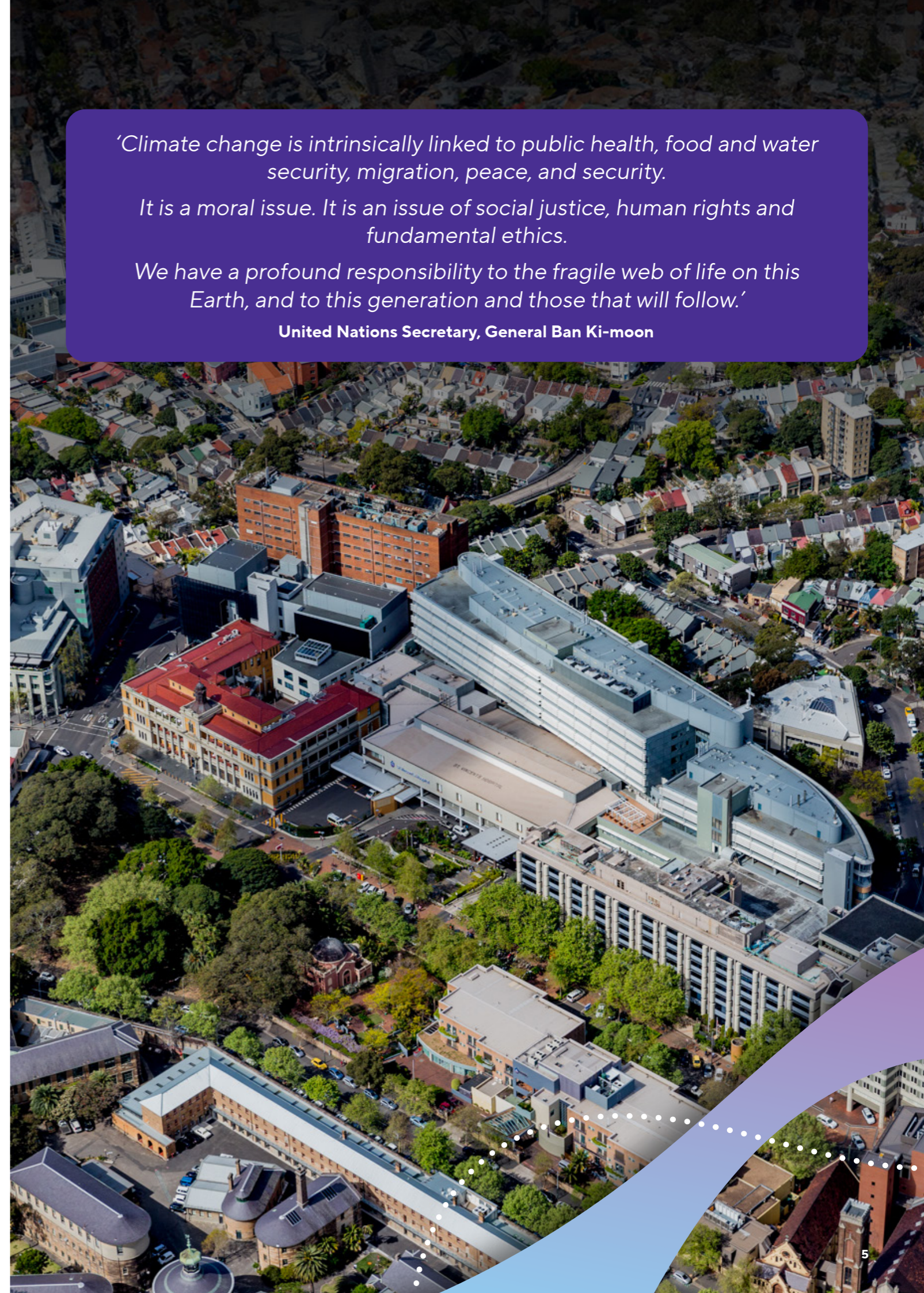


*'Climate change is intrinsically linked to public health, food and water security, migration, peace, and security.*

*It is a moral issue. It is an issue of social justice, human rights and fundamental ethics.*

*We have a profound responsibility to the fragile web of life on this Earth, and to this generation and those that will follow.'*

**United Nations Secretary, General Ban Ki-moon**



# Executive Summary

The SVHNS Environmental Sustainability Plan (ESP) 2024-2026 outlines the Network's vision to become a more environmentally aware and sustainable organisation, and articulates our approach to achieving net zero by 2050. This ESP was developed in partnership with our people and key external stakeholders.

This ESP identifies 5 priority domains which have some of the greatest impact on climate outcomes and therefore present the greatest opportunities for intervention. These include Governance, Culture and Engagement, Waste and Energy, Transport and Procurement and Clinical Sustainability.

This ESP will deliver on both NSW government and SVHA strategies, priorities and Key Performance Indicators (KPIs) related to environmental sustainability. These include the NSW Government's Net Zero Plan Stage 1: 2020-2030 and the NSW Health Future Health strategy, pillar 6, where 'the health system is managed sustainably and there is commitment to 'an environmentally sustainable footprint for future healthcare (6.2)'.

Environmental Social Corporate Governance (ESG) initiatives also form a key part of SVHA's Strategy to 2030, with a focus on continuously improving our care and enhancing our positive impacts for patients, people and planet. SVHA will transition to a low carbon climate resilient healthcare provider by reducing demands on earth's resources. This will be achieved through decreasing energy, waste and carbon emissions, reducing our climate vulnerability and contribution to climate change, and using our voice to accelerate progress, improving planetary health and health equity for vulnerable people.

The infographic consists of seven purple rounded rectangular buttons arranged in two columns. Each button contains a white icon and a text label. The first column contains: a building icon for 'Governance', a group of people icon for 'Culture and Engagement', a trash can icon for 'Waste', and a lightbulb icon for 'Energy'. The second column contains: a car with a lightning bolt icon for 'Transport', a shopping cart with a gear icon for 'Procurement', and a hand holding a plant icon for 'Clinical Sustainability'. A decorative wavy line in shades of blue and purple runs across the bottom of the infographic.



# About St Vincent's Health Network Sydney

## SVHNS is comprised of:

- St Vincent's Hospital Sydney (SVHS), a publicly funded major referral centre and level 6 role delineated teaching and principal referral hospital.
- Sacred Heart Health Service (SHHS), a publicly funded sub-acute teaching hospital providing palliative care and rehabilitation services.
- St Vincent's Correctional Health (SVCH) Parklea, providing healthcare services to Parklea Correctional Centre.

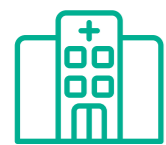
SVHS plays a significant role in the NSW public health system, delivering 2.5% of the State's activity via a comprehensive range of acute medical and surgical services, including emergency and trauma services, as well as specialised sub-acute, rehabilitation and palliative care. These services are essential in meeting the growing and evolving demand of the population.

By virtue of its inner-city urban location, SVHS provides healthcare services to diverse populations, many of whom are at higher risk of poor health outcomes. SVHS recognises that urban health reflects the outcomes of the physical

and the social environment which in turn impact residents' and communities' well-being and quality of life. As urban peoples will be some of the most directly affected by impacts of the changing climate SVHS is working on solutions to protect vulnerable populations in the community from adverse events such as extreme heat exposure, such as those who are experiencing homelessness and do not have access to appropriate shelter from severe weather.

In addition to clinical service delivery, SVHS plays a crucial function as cornerstone partner of the St Vincent's Sydney Health Innovation Precinct (SVSHIP), NSW's original health innovation precinct. The Precinct has an extensive history of translational research innovations, resulting in a material contribution to the social, economic and health advancements of NSW. The precinct plays a key role in the development of a sustainable healthcare future, with a dedicated focus on environmental stewardship.

There are a number of environmental sustainability initiatives already underway across SVHNS, which will be built upon and expanded through this ESP.



**+ 40,000**

Hospital Admissions



### Our local area

has the highest population of people experiencing homelessness in NSW



**+ 50,000**

Emergency Department (ED) presentations



### AOD patients

18% of all Mental Health and 11% & of all Alcohol or Drug (AOD) patients present with an unknown address



**+ 1 Million**

occasions of service



### Sole designated provider

of Heart and Lung Transplantation and Haematopoietic Stem Cell Transplantation for Severe Scleroderma in NSW

## CASE STUDY: Australia's first mobile cooling hub

Socially disadvantaged people are especially exposed to extreme heat and other impacts of climate change. Researchers across Queensland University of Technology, the University of Technology Sydney, and the University of Sydney are working with people experiencing homelessness, SVHS and the City of Sydney (CoS) to design, deliver and evaluate Australia's first mobile 'cooling hub' for summer 2023/24. Nurses, doctors and peer support workers of SVHS, Homeless Health Service and the CoS public liaison officers will staff the hub, and provide evidence-based cooling strategies, monitor body temperature, blood pressure and heart and breathing rates to identify early signs of heat illness.



# Introduction

A growing body of local and international evidence demonstrates that climate change is negatively impacting human health through a variety of mechanisms. The most immediate health risks are related to extreme weather events, changes in infectious diseases patterns, and detrimental effects on food and water security. The impacts of climate change are likely to place increased pressure on Australia's health system and will exacerbate existing health inequities, with vulnerable groups and rural communities most affected.

Recognising that the health of future generations is intrinsically linked to the health of our environment, it is imperative to understand the multifaceted impact of climate change on human well-being. This impact extends beyond physical health and encompasses mental and emotional well-being as well.

Globally, healthcare's carbon footprint has been estimated to be equivalent to 4.4% of all greenhouse gases (GHG) emissions. In Australia, healthcare delivery is substantially more energy intensive than many other activities, contributing to approximately 7% of Australia's total GHG emissions within the healthcare system. At the NSW state level, a 2017 assessment of the private and public health system similarly found that 6.6% of estimated GHG emissions and 8% of all waste is generated in the sector, with hospitals accounting for 25% of emissions. Other major contributors within the NSW health system included pharmaceutical products (21%), medicinal goods (18%), as well as pathology and diagnostic imaging<sup>1</sup>.

## This plan has considered a range of strategies and policies, including:

- St Vincent's Health Australia Strategy 2030
- NSW Climate Change Policy Framework
- NSW Electric Vehicle Strategy
- NSW Government's Net Zero Plan Stage 1: 2020-2030
- NSW Health Future Health strategy
- Climate Risk Ready NSW Guide
- NSW Health Resource Efficiency Strategy 2016-2023
- NSW 20-Year Health Infrastructure Strategy
- NSW Health Climate Risk & Net Zero Unit: Position Statement
- NSW Net Zero Industry and Innovation Program

A significant proportion of Australian health services are actively pursuing sustainable healthcare goals. In a 2022 survey of 439 hospitals and 1,687 health service providers in the Global Green Healthy Hospitals (GGHH) network, areas most commonly pursued include energy (77%) and waste (68%), followed by leadership (55%), buildings (55%) and purchasing (55%). There is however, a lack of standardised processes and metrics being used and close to half of services are unsure about their activities on safety and quality of care.

To start reducing a carbon footprint, we first must understand and monitor our carbon emissions. Scope 1 emissions are direct emissions from company-owned and controlled resources, and scope 2 emissions are indirect emissions from the generation of purchased energy. Collectively these account for only 30% of emissions in Australian hospitals, with over 70% of GHG emissions arising from scope 3 emissions – indirect emissions that occur in the value chain of company and which are the hardest to measure and control. Consequently, achieving net zero requires efforts that extend beyond conventional sustainability frameworks and targets.

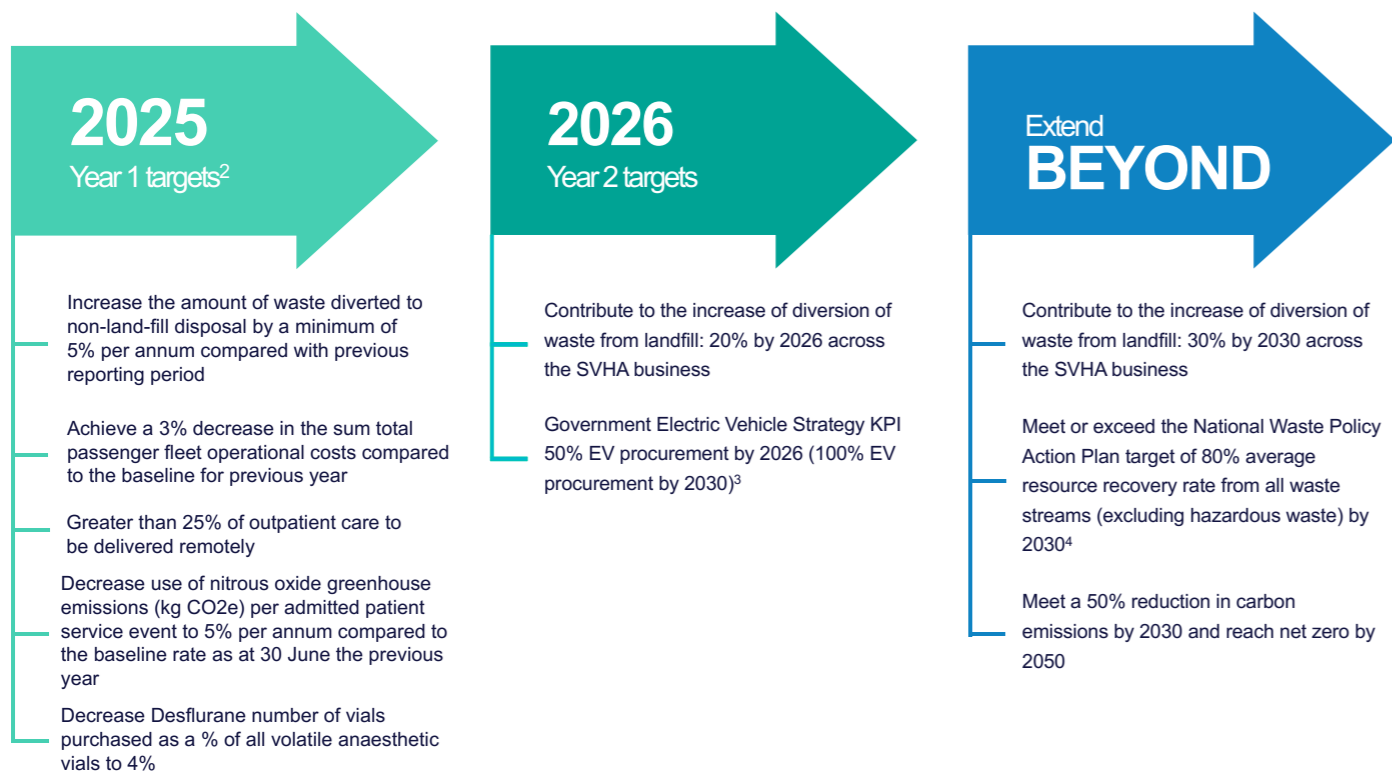
Since 2015-16, SVHA has been rolling out a National Energy Action Program amongst several other initiatives across its 16 hospitals (including SVHNS) and 23 aged care facilities to minimise its carbon emissions. These initiatives work toward realising SVHA's goal to reduce carbon emissions by 50% by 2030.



<sup>1</sup> Malik, Padget, Carter et al. Environmental impacts of Australia's largest health system. Resources, Conservation & Recycling. 2021; 169:105556

# Key Targets for St Vincent's Health Network Sydney

Our sustainability roadmap includes key NSW Health and SVHA sustainability targets which will guide and support our ambition towards net zero.



<sup>2</sup> Targets outlined in year 1 are NSW Health KPIs.  
<sup>3 and 4</sup> Ibid

# Geneva Sustainability Centre

The Geneva Sustainability Centre (GSC) is an initiative of the International Hospital Federation, a global not-for-profit membership organisation which brings together representatives of the world's hospitals and health systems to improve health service delivery. The GSC aims 'to equip current and future hospital leaders with the information, tools, and skills to drive the sustainable transformation at leadership, management, and institutional levels in health care delivery.' As part of a wider sustainability agenda, the centre thrives to anchor leadership for sustainability into the global healthcare sector and create long term value for people and communities.

Through our partnership with the Australian Health Care Hospitals Association, SVHS has chosen to participate in GSC's international pilot of a Sustainability Accelerator Tool (SAT), an innovative digital platform that provides hospitals and healthcare organisations with a comprehensive solution to assess their sustainability maturity and track their progress against KPIs, aiming to drive organizations forward on their journey to sustainability and climate resilience.

### The SAT tool features:

- A sustainability maturity assessment, a questionnaire to assess hospital's maturity across environment, health equity and governance
- Sustainability KPIs tracking and benchmarking, a list of 120+ sustainability-related KPIs to track hospital's progress over time and compare with peers
- Sustainability expertise and knowledge sharing

SVHS will continue to work with the GSC and incorporate the tool in monitoring progress and benchmarking performance against achievement of this plan.



## Sustainability Accelerator Tool (SAT)

# Environmental Performance FY23

## Energy

In FY 23 SVHNS

- Used a total of 21,658,855 kWh of electricity across its facilities for FY23 (scope 2)
- With the inclusion of stationary fuel consumption, this equals 135,455GJ
- This equates to total carbon emissions of 18,690 Co2e

Scope 2 - Electricity	kWh	GJ	CO2e	% consumption	GJ / OBD
Scope 2 - Purchased electricity from the grid [kWh]	21,541,448	77,549	15,725	99.46%	
Solar electricity generated onsite [kWh]	117,407	423	-	0.54%	
<b>Total Electricity Consumed</b>	<b>21,658,855</b>	<b>77,972</b>	<b>15,725</b>	<b>100.00%</b>	<b>0.47</b>

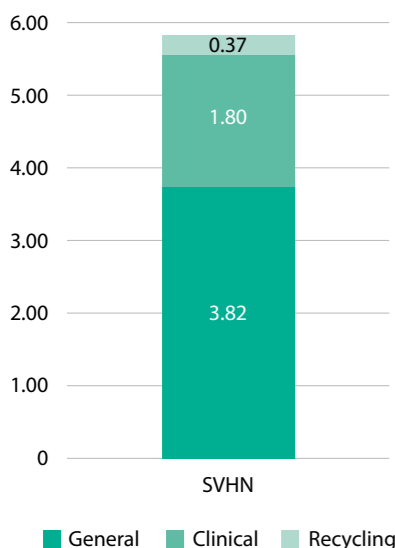
Scope 1 - Stationary fuel combustion	Litres	GJ	CO2e	% consumption	GJ / OBD
Natural gas [GJ]		57,329	2,954	99.73%	
Diesel fuel for generators [GJ]	3,992	154	11	0.27%	
<b>Total stationary fuels in buildings (scope 1)</b>		<b>57,483</b>	<b>2,965</b>	<b>100.00%</b>	<b>0.35</b>

## Waste

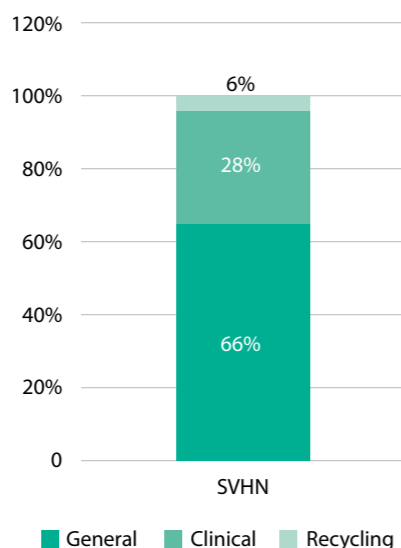
In FY 23 SVHNS

- Produced 952,265 kg of overall waste
- 66% was general waste, 28% clinical waste and only 6% recycling
- 3.82kg of general waste, 1.60kgs clinical and 0.37kgs of recycling was generated per occupied bed day (OBD)

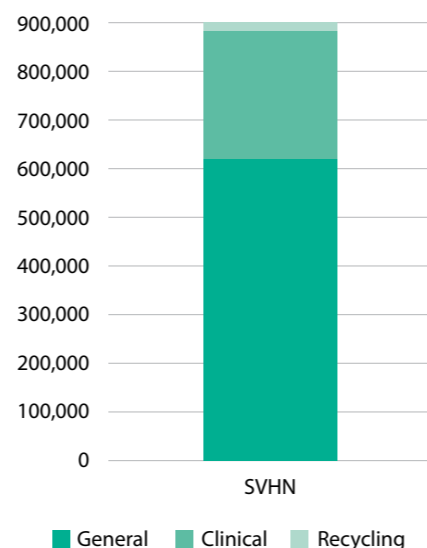
SVHNS FY23 Kg / occupied bed day by waste stream



SVHNS FY23 % proportions of waste streams



SVHNS FY23 Absolute total kilograms by waste stream



<sup>6</sup> Carbon dioxide equivalent, the number of metric tons of Co2 emissions with the same global warming potential as one metric ton of another greenhouse gas

## Fleet

In FY 23 SVHNS

- Consumed a total of 95,810 litres of fuel to run its fleet
- This equates to total carbon emissions of 230 Co2e<sup>6</sup>

Scope 1 - Fleet fuel combustion	Litres	GJ	CO2e	% consumption	GJ / OBD
Diesel Transport post-2004 [L]	20,819	804	57	21.73%	
Ethanol E10 Transport post-2004 [L]	132	4	0	0.14%	
Petrol Transport post-2004 [L]	74,859	2,560	173	78.13%	
<b>Total litres consumed</b>	<b>95,810</b>	<b>3,368</b>	<b>230</b>	<b>100.00%</b>	<b>0.02</b>

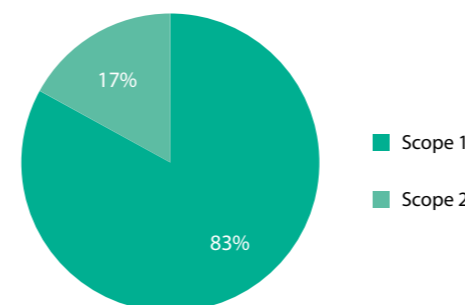
## Carbon

- SVHNS total carbon footprint for FY23 was 18,953 Co2e
- 17% was attributed to scope 1 and 83% scope 2
- 83% was attributed to purchased scope 2 electricity from the grid

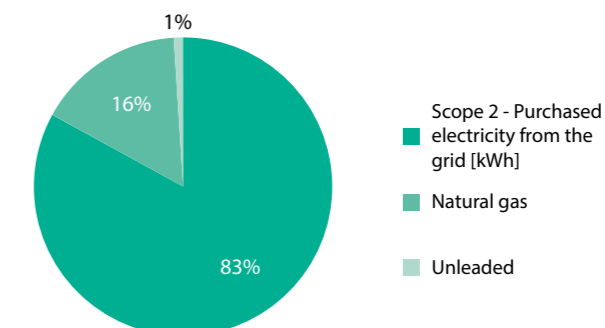
Scope	Fuel source	GJ	CO2e	%
Scope 2	Purchased electricity from the grid [kWh]	77,549	15,725	82.97%
	Solar electricity generated onsite [kWh]	423	-	0.00%
Scope 1	Natural gas	57,329	2,954	15.59%
Scope 1	Diesel fuel for generators	154	11	0.06%
Scope 1	Diesel Transport	804	57	0.30%
Scope 1	E10	4	0	0.00%
Scope 1	Unleaded	2,560	173	0.91%
Scope 1	Medical and anaesthetic gas	-	33	0.17%
<b>Total</b>		<b>138,823</b>	<b>18,953</b>	<b>100.00%</b>

## SVHNS FY23

by fuel source



by scope





# Priority Domains and Actions Roadmap



## Governance

**GOAL:** Governance structures and processes embed consideration of environmental impact in all decision-making and support distributed leadership for initiatives across the organisation

Strategy	Timeframe	Measures
Our Environmental Sustainability leadership and governance structures and mechanisms are robust		
Continue to work with SVHA to establish an accurate set of SVHNS environmental performance data sets	Year 1	Data is accurate and available
Incorporate environmental sustainability initiatives and risks into Business Plans and risk processes	Year 1	Environmental sustainability initiatives part of Executive Sponsors Business Plan and risk registers GGHH Action: Dedicate staff resources at the executive/directorate and facility levels to address environmental issues organization wide.
Ensure robust process in place for monitoring and reporting environmental performance and initiatives underway through governance structure	Year 1	Robust process in place
Environmental sustainability projects are embedded in existing quality improvement structures, registers and supports	Year 2	Environmental sustainability projects registered and embedded
Incorporate consideration for environmental sustainability into Matters for Decision/Information templates	Year 3	Environmental sustainability incorporated
Achieving our sustainability goals is resourced to support the required change management		
Scope and explore the opportunity to optimally resource the environmental sustainability function/s across the network	Year 1	Resourcing scoped and recommendations implemented
Seek external partnership and collaboration commitments		
SVHNS to join the Global Green Healthy Hospitals network	Year 1	Resourcing scoped and recommendations implemented
Improve the existing structure and mechanisms to collaborate activity and efforts with SVHNS Precinct partners, and align key initiatives and measures	Year 2	Structure in place, initiatives and measures aligned

Strategy	Timeframe	Measures
Collaborate with Geneva Sustainability Centre (GSC), participating in the Sustainability Accelerator Tool (SAT)	Ongoing	Data inputs complete in SAT and platform operational
Network with the NSW Health net zero clinical program leads and programs	Ongoing	Networking underway and relationships in place
Incorporate Aboriginal decision making and co-design in Environmental Sustainability		
Establish a plan to ensure the alignment of environmental sustainability activities and relevant Aboriginal-specific programs, procedures, guidelines, health initiatives, or strategies	Year 2	Coordination of activities in place and monitored

### CASE STUDY: Sydpath Needle Cap Recycling Project

In 2023, St Vincent’s Pathology service, in collaboration with Allmould Plastics and their AMP Circular Program, Sydpath commenced an innovative recycling project, with an aim to save over 140,000 pieces of plastic from landfill. In a first for the NSW pathology sector, every plastic needle cap from each blood samples taken across SVHS and St Vincents Private Hospital, The Kinghorn Cancer Centre and all 26 SydPath collection centres across the state, will be collected and recycled, in an effort to reduce our organisation’s environmental footprint.

Becton Dickinson have been a partner with SVHNS for the last 25 years and agreed to fund the implementation of this project, leading the field within medical device manufacturing in regards to whole of life stewardship of their medical products. St Vincent’s have also partnered with Allmould Plastics Group from Orange NSW who will be reprocessing the recycled Becton Dickinson materials, giving this product, once headed to landfill or incineration, a second life



# Culture and engagement

**GOAL:** That the people we care for, our people, our partners and stakeholders recognise SVHNS as a leading, low carbon, low waste, climate resilient health service.

Strategy	Timeframe	Measures & KPIS
Our people are inspired and enabled to support action, innovation, investment and decision-making in reducing our environmental impact		
Develop and communicate clear process for proposing environmental sustainability initiatives	Year 1	Process developed and in place to foster engagement and avenues for staff suggestions
Identify best practice online training and explore/ scope for all staff education, aligned with NSW Health	Year 1	Online education/ training program for environmental sustainability endorsed and ready for commencement
Incorporate an environmental sustainability focus in staff engagement and education through regular forums (e.g. Grand Grounds, Town Halls)	Year 1	Environmental sustainability embedded in regular forums  GGHH Action: Provide opportunities for educating staff and community on environmental factors that contribute to the burden of disease, as well as the relationship between public environmental health and disease prevention
Update all position descriptions (PDs) to reflect a SVHNS commitment to environmental sustainability	Year 2	50% completed by December 2024, 100% completed by December 2025
Include environmental sustainability at SVHNS in orientation program	Year 3	Included in SVHNS orientation
Include attitudes, behaviours and organisational performance indicators towards environmental sustainability in annual staff survey	Year 3	Survey includes new indicators, and staff survey shows improvement in attitudes, behaviours and organisational performance
Build knowledge and capacity amongst our workforce by implementing training program to understand and engage in planetary health	Year 3	Online education/training program implemented
Maintain a register of environmental sustainability initiatives being taken across SVHNS and the impacts achieved	Ongoing	A register of activity and its impact is collated and maintained (e.g. quality projects registered via Riskman and good news stories promoted via SharePoint)
Promote and celebrate achievements in environmental sustainability	Ongoing	Inclusion regularly in multiple communication channels, SharePoint posts, Daily Bulletin, Social media
Support and promote participation and engagement in networks and communities of practices (e.g. NSW Health, GGHH Network) to share experiences, learn and collaborate.	Ongoing	SVHNS staff participation and engagement at forums  GGHH Action: Build or participate in local networks of hospitals and/or health services groups committed to advocate for environmental health policies

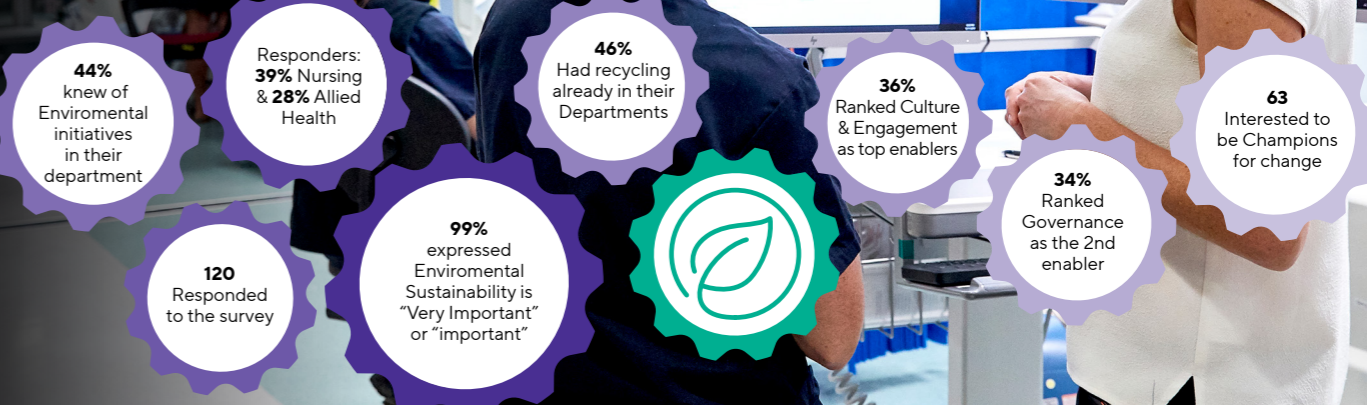
Strategy	Timeframe	Measures & KPIS
Our consumers are engaged in environmental sustainability		
Scope opportunities and mechanisms to include consumers in environmental sustainability	Year 2	Opportunities/mechanisms scoped and recommendations available
The action we are taking and the impact of our efforts are promoted to our partners and stakeholders		
Achievements are reported and entered into award programs (i.e. SVHA Group and NSW Health, St Vincent's Curran Foundation)	Year 2	Award nominations submitted
Develop and distribute media releases on key SVHNS environmental sustainability actions and impacts	Ongoing	Media releases distributed; proportion picked up by journalists, and social media posts



## CASE STUDY: SVHNS Environmental Sustainability Staff Survey

A network wide staff survey was conducted to understand what's most important to our staff, where we are already leading the way, and what opportunities exist as we move forward in our sustainability efforts. With over 120 respondents across medical, allied health, nursing, support staff and executive - the survey results demonstrated a high level of interest and support for environmental sustainability initiatives at SVHNS.

This was emphasised by 99% of respondents expressing that environmental sustainability is 'very important' or 'important' to them, and with almost 50% of respondents already aware of environmental initiatives already underway in their departments. Culture and Engagement was cited as the top enabler in achieving our goals, followed by effective Governance structures.





# Waste

**GOAL:** That SVHNS minimises waste and improves resource recovery.

Strategy	Timeframe	Measures & KPIS
Review and refine audit schedule and reporting for waste	Year 1	Refined reporting of waste audit mechanisms and schedule in place
Review waste streams and dashboard data, and identify and scope improvement initiatives	Year 1	Initiatives identified for focus and proposals complete for endorsement
Review existing recycling programs and dashboard data and identify programs/initiatives with the potential for greatest impact	Year 1	Review complete initiatives identified for year 1. Initiative to repeat for subsequent years, incorporating learnings and harnessing new opportunities.
Trial and implement 2 key prioritised initiatives for waste streams, waste avoidance	Year 2	Initiative-specific measures for evaluation will be required to be developed <b>NSW Health KPI:</b> overall reduction in the amount of waste disposed to landfill by increasing the amount of waste diverted to non-land-fill disposal by a minimum of 5% per annum compared with previous reporting period <b>SVHA target:</b> Increase diversion of waste from landfill by 20% across the business
Trial and implement 2 key prioritised initiatives resource recovery/recycling	Year 2	Initiative-specific measures for evaluation developed <b>NSW Health KPI:</b> overall reduction in the amount of waste disposed to landfill by increasing the amount of waste diverted to non-land-fill disposal by a minimum of 5% per annum compared with previous reporting period <b>NSW Health KPI:</b> meet or exceed the National Waste Policy Action Plan target of 80% average resource recovery rate from all waste streams (excluding hazardous waste) by 2030
Engage with SVHA about opportunities to improve sustainability terms in service contracts of collection/disposal services	Year 2	Opportunities identified and proposal for changes documented for endorsement and implementation
Explore opportunities to collaborate with industry and other partners to implement circular economy solutions in our hospitals and services	Year 3	Opportunities scoped and initiatives recommended
Continue the implementation of existing waste recovery initiatives	Ongoing	Existing initiatives implemented and supported <b>NSW Health KPI:</b> overall reduction in the amount of waste disposed to landfill by increasing the amount of waste diverted to non-land-fill disposal by a minimum of 5% per annum compared with previous reporting period <b>SVHA target:</b> Increase diversion of waste from landfill by 20% across the business



## CASE STUDY: Intensive Care Unit (ICU) 'No Waste' Project

SVHNS has also secured the first Agency for Clinical Innovation supported environmental sustainability improvement project for their clinical redesign project ICU 'No Waste' Project. In ICU, bedside trolleys are consistently overstocked/incorrectly stocked, leading to excess waste when a multi-resistant organism (MRO) positive patient is discharged impacting both financial and environmental sustainability.

The aim is by April 2024 SVHS ICU will have improved sustainable practices in order to deliver better efficiencies for staff in the delivery of patient care at the bedside.

The project has 2 key objectives: 1. To reduce unused clinical product waste generated from overstocked bedside trolleys for patients with MROs from an average of 127 to 64 by April 2024, and 2. To reduce the number of ICU staff who perceive that current clinical practices produce excess waste from 79 to 65 by April 2024.

# Energy

**GOAL:** That SVHNS avoids energy use and implements energy efficiency or renewable energy projects

Strategy	Timeframe	Measures & KPIS
We understand our energy sources and usage		
Assess energy efficiency of buildings and heating, ventilation and air conditioning (HVAC) systems	Year 3	Report completed on energy efficiency of SVHNS buildings and heating, ventilation and air conditioning (HVAC) systems
Our infrastructure minimises energy use		
Ensure all computers automatically switch to sleep mode after a period of inactivity	Year 1	All computers automatically switch to sleep mode after a period of inactivity
Scope an energy conservation and efficiency program that will reduce energy consumption, identifying prioritised initiatives	Year 3	Energy conservation program scoped and recommendations available
Trial and implement 2 key prioritised initiatives - re energy consumption	Year 3	Initiative-specific measures for evaluation will be required to be developed <b>NSW Health KPI:</b> total amount of energy use avoided through the implementation of energy efficiency or renewable energy projects, during reporting year, expressed as a proportion of the total energy use in the previous year (target 1.5%)
Incorporate upgrades and improvements to energy efficiency into end of life replacement processes	Year 3	Upgrades incorporated <b>NSW Health KPI</b> total amount of energy use avoided through the implementation of energy efficiency or renewable energy projects, during reporting year, expressed as a proportion of the total energy use in the previous year (target 1.5%)

## CASE STUDY: Baseline Data, Geneva Sustainability Tool (SAT)

Understanding our environmental performance is key to establishing baseline measurement for KPIS and measuring improvement.

Working with the GSC's pilot SAT enabled SVHNS to help establish a data baseline for its energy use across facilities. The process included the need to calculate the total area of hospital facilities in square meter age (sqm), source the annual energy consumption in megawatt Hours (MWh) and annual number of hospital episodes to produce benchmarking around the annual energy consumption per patients covered and sqm.

As the tool matures, SVHNS will be able to track energy use closely and benchmark performance against other similar sized health care facilities.



# Transport

**GOAL:** That SVHNS reduces the carbon footprint of transport associated with the delivery of health care and the travel of staff and consumers.

Strategy	Timeframe	Measures & KPIS
The passenger vehicle fleet is optimised		
Review fleet usage and data and identify improvement initiatives	Year 2	Analysis complete and opportunities identified
Implement 2 of the opportunities identified to reduce global fleet size and operational costs	Year 3	Decrease of annual fuel, servicing, registration and insurance <b>NSW Health KPI:</b> 3% decrease in the sum total passenger fleet operational costs compared to the baseline for previous year
Use of electric vehicles is supported and promoted		
Implement SVHNS electric ambulance in fleet	Year 1	<b>NSW Health KPI:</b> Government Electric Vehicle Strategy KPI 50% EV procurement by 2026 (100% EV procurement by 2030).
Invest in infrastructure (e.g., electric charging stations) to support the use of electric vehicles by SVHNS staff, visitors, consumers, carers and families	Year 1-2	Number of electric charging stations
Monitor NSW Health and Australian Government Department of Climate Change, Energy, the Environment and Water for opportunities and incentives that support the electrification of the SVHNS fleet (e.g. EV fleets incentive)	Ongoing	<b>NSW Health KPI:</b> Government Electric Vehicle Strategy KPI 50% EV procurement by 2026 (100% EV procurement by 2030).
Secure funding to support the electrification of the SVHNS fleet	Ongoing	Funding secured to support electric fleet
Unnecessary travel is reduced		
Analyse SVHNS business travel activity and policies (transport receipts (road, rail, air) to establish a benchmark level of use, estimate of emissions, and opportunities to improve	Year 1	Report complete with benchmark data of travel and emissions and opportunities
Evaluate the carbon footprint of existing on campus models of care to identify opportunities to minimise environmental impact (e.g., HITH; virtual care)	Year 2	Evidence collated and report complete <b>NSW Health target</b> - >25% of outpatient care to be delivered remotely
Continue to drive/support virtual care strategy for patient care wherever possible	Ongoing	<b>NSW Health target</b> - >25% of outpatient care to be delivered remotely
Low carbon transport alternatives are encouraged and promoted		
Engage with consumers and staff, to understand barriers and enablers to support increased uptake of low carbon transport options (e.g., active and/ or public transport)	Year 3	Engagement with staff and consumers complete, barriers identified

## CASE STUDY: Australia's first electric ambulance

SVHNS was the first hospital in Australia to launch an electric ambulance as part of its patient transport fleet, a collaborative and philanthropic venture with the JW & M Cunningham Foundation. The new LDV e-Deliver9 model of electric ambulance has zero tailpipe emissions, is fast charging and can travel up to 280km range on a full charge. It has been converted by Amtek into an ambulance configuration and will be used for local discharge and inter hospital transfers. It is equipped with electric stretcher as well as dual air conditioning with separate batteries.





# Procurement

**GOAL:** Procurement processes embed consideration of environmental impact in all decision-making to actively encourage the suppliers we work with to practice sustainable product development.

Strategy	Timeframe	Measures & KPIS
The carbon footprint of products is considered within all SVHNS procurement and purchasing decisions		
Work with SVHA, NSW Health and other suppliers in procurement to identify mechanisms to improve sustainability through procurement, service contracts and products	Year 2	Mechanisms/improvement initiatives identified
Incorporate the consideration of environmental impacts in SVHNS Procurement Policy and documents/templates alongside outcomes and costs when making procurement and purchasing decisions	Year 3	Policy includes environmental impacts
Develop sustainability KPIs and evaluation criteria and incorporate within all SVHNS procurement contracts	Year 3	Sustainability KPIs and evaluation criteria developed, and proportion of procurement contracts include sustainability KPIs and evaluation criteria
An understanding of the environmental credentials of all SVHNS suppliers is developed and shared with staff	Year 3	List complete with credentials and shared
Procurement of non-sustainable products and services is avoided		
Review procurement streams and identify opportunities for greatest impact, in terms of initiatives that: <ul style="list-style-type: none"> <li>• reduce single use items</li> <li>• restrict use of excess packaging</li> <li>• reduce unnecessary clinical equipment/ pack purchasing</li> <li>• promote repair and reduce of onsite durable goods</li> <li>• prioritise products that can be recycled or reprocessed</li> </ul>	Year 2	Opportunities scoped and initiatives for improvement confirmed  Initiative to repeat for subsequent years, incorporating learnings and harnessing new opportunities.
Our people are empowered with the knowledge and skills to advocate for and discern sustainable procurement opportunities		
Identify best practice training in sustainable procurement and explore/scope for staff education	Year 2	Training opportunities for sustainable procurement endorsed and ready for commencement



## CASE STUDY: Oxygen saturation probes in the ED

In 2022, it was noted that SVHS was procuring a proportionately large amount of disposable oxygen saturation monitors (finger probes) particularly in the ED. A proposal was put forward by the Clinical Products Nurse Manager to invest \$5,982 in reusable equipment to reduce the reliance on the disposable product.

Prior to implementation, the ED was purchasing approximately 28,656 units per year. After implementation of the reusable equipment, usage of the disposable product reduced 41% to approximately 14,400 units per year. This has resulted in significant savings from an environmental and financial perspective.

# Clinical Sustainability

**GOAL:** Care processes and models are grounded in a fundamental duty of resource stewardship and care for planetary health.

Strategy	Timeframe	Measures & KPIS
Known high carbon pharmaceuticals are reduced		
Decrease use of Desflurane gas	N/A	Reduce to zero usage – achieved NSW Health KPI Decrease Desflurane number of vials purchased as a % of all volatile anaesthetic vials to 4%
Decrease use of Nitrous Oxide gas usage	Year 2	Scope a plan/approach and commence implementation  NSW Health KPI: Decrease use of nitrous oxide greenhouse emissions (kg CO2e) per admitted patient service event to 5% per annum compared to baseline rate at 30 June previous year
Identify key known high carbon producing pharmaceuticals and establish baseline levels of use and monitor/report routinely	Year 3	Identification and baseline measuring level established
Unnecessary tests, procedures and routine testing are reduced		
Identify tests and procedures susceptible to unnecessary ordering and analyse opportunities for improvement	Year 2	Tests identified and opportunities for improvement initiatives confirmed
Trial and implement prioritised 2 initiatives in relation to reducing unnecessary tests and procedures	Year 3	Specific evaluation and measures to be specified for initiatives
The least resource intensive setting is used		
List new models of care currently being implemented (e.g., HITH, virtual) and collate and report the environmental impact	Year 1	List complete and evidence available
We understand how our care processes and models contribute to emissions		
Research and promote how processes/models contribute to emissions via: <ul style="list-style-type: none"> <li>Known high carbon pharmaceuticals</li> <li>Unnecessary tests, procedures, and routine testing</li> <li>Unwarranted clinical variation</li> <li>Using the least resource intensive setting</li> <li>Health promotion initiatives</li> </ul>	Year 3	Research complete and promoted to staff

## CASE STUDY: Reducing Desflurane gas usage to zero

Anaesthetic gases are 5% of a hospital’s carbon footprint. The highest impact gases are Desflurane and Nitrous Oxide due to their extremely high carbon footprint.

In Australia and New Zealand, anaesthetic trainees formed TRA2SH (Trainee-led Research and Audit in Anaesthesia for Sustainability in Healthcare), a network aiming to encourage research and quality improvement initiatives around environmental sustainability.

It promotes an online pledge encouraging anaesthetic departments to immediately reduce their use of Desflurane and remove it from their hospital formulary by 2025.

In July 2023 SVHNS pledged to discontinue using Desflurane to lower our carbon footprint whilst also prioritising the safety of our patients and community. This achievement also aligns with NSW Health KPI ‘Decrease Desflurane number of vials purchased as a % of all volatile anaesthetic vials to 4%.’





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