Environmental Disclosures 2025

Impact Built, Together

NUS National University of Singapore | University Campus Infrastructure

Yusof Ishak House, retrofitted through adaptive reuse and a Green Mark Platinum Super Low Energy (Provisional) building, sits amongst the Ridge –a secondary forest on NUS campus.

ENVIRONMENTAL DISCLOSURES

About NUS Campus Sustainability Roadmap 2030

Produced by:
Sustainability Strategy Unit,
University Campus Infrastructure,
National University of Singapore

About Environmental Disclosures

The Environmental Disclosures begin with the highlights of key achievements for the year, along with an overview of NUS Sustainable Campus Development Framework. The subsequent sections delve into our key programmes that support the pillars of the Singapore Green Plan 2030—starting with the context and programme strategy, followed by a review of the year's performance and updates on our progress, and concludes with our environmental data. These quantitative disclosures complement the NUS Sustainability Report, which provides a qualitative overview of the University's contributions to sustainability in education, research, campus and leadership, and the NUS Impact Report.

They are prepared with reference to the Global Reporting Initiative (GRI) Universal Standards 2021, especially on the Topic Standards related to environmental sustainability. We also aligned our emissions calculation methodology to the Greenhouse Gas Protocol. In addition to our top-line indicators, we share the energy performance of our Net Zero Energy or Positive Energy and top energy-intensive buildings, our evidence-based approach to mitigate rising temperatures and how we manage and close waste loops.

We have engaged Ere-S Pte Ltd to provide independent limited assurance on selected disclosures in this document. The assured disclosures cover Scope 1 and 2 GHG emissions, energy, waste, Green Mark certifications for buildings that have achieved or are targeting Net Zero Energy or Positive Energy performance, energy consumption for buildings where we are focusing on higher performance or reductions, and selected categories of Scope 3 GHG emissions. The assurance was conducted in accordance with the International Standard on Sustainability Assurance (ISSA 5000). The Independent Limited Assurance Statement, including the scope of work and conclusions, can be found here.

The disclosures are for Financial Year (FY^) 2025, spanning 1 April 2025 to 31 March 2026 (denoted as "2025").

For enquiries, please contact campus_sustainability@nus.edu.sg.

About University Campus Infrastructure

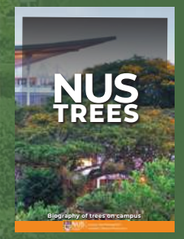
The University Campus Infrastructure (UCI) is an office in the National University of Singapore whose role is to ensure that the campus infrastructure supports and augments campus life for the community. As the steward of the University's real estate portfolio, UCI plays a central role in advancing campus sustainability — from masterplanning a climate-resilient campus, designing, constructing, and operating low-carbon buildings, to leveraging everyday infrastructure touchpoints like hostels and canteens to shape sustainable behaviour across the community.

^ Financial Year (FY) for Year N is defined in this document for the period of April in Year N to March in Year N+1. All years in this report are Financial Years unless otherwise stated.

Campus Sustainability at NUS & **2025 Highlights**

Ficus crassiramea or the Collared Fig is a Heritage tree that stands at the roundabout on south end of College Link. The endangered tree was donated by NParks in 2011.

Learn more about the heritage trees on NUS campus below.



Highlights

Rounding up 2025

▲ By end 2026, the SDE building cluster will be Singapore's first Positive Energy building cluster, comprising SDE1, SDE3 and SDE4, with an outstanding Energy Usage Intensity of about 50 kWh/m², while its combined rooftop solar panels can produce over 15% more electricity annually than it uses. After completing an adaptative reuse renovation in 2023, SDE1 and SDE3 achieved a low embodied carbon intensity of under 200 $kgCO_2e/m^2$.

DECARBONISE
Supporting Energy Reset Pillar

Delivering low-carbon, high performing teaching, office and lab buildings

We advanced the SDE building cluster to Net Positive Energy performance, progressed Ventus towards Net Zero Energy by end 2026 and began planning for a new Super Low Energy laboratory building in 2028.

DECARBONISE
Supporting Energy Reset Pillar

Commenced 7k tCO_2e worth of carbon reduction projects

Building on 2021 to 2024 efforts that delivered 7k tCO_2e in annual carbon reductions, we are targeting a further 11k tCO_2e under the 2025 to 2027 Decarbonisation Plan to bring emissions back to the 2019 baseline by 2027.

$20 million worth of projects representing 7k tCO_2e of that goal have commenced, including LED replacements, dynamic ventilation in laboratories and teaching facilities, and the second phase of campus-wide solar PV roll-out. 10.2 MWp of solar PV capacity has been commissioned to-date.

◂ A key project under the Decarbonisation Plan is delivering dynamic ventilation or air change rates in MD6 by 2028-2029. It has potential to save 4.5 GWh of electricity annually, allowing MD6 to exceed its 20% energy reduction target compared to 2022 baseline.

▲ A Computational Fluid Dynamics (CFD) simulation of Kent Ridge Campus, developed with the campus' microclimate data, depicts how building density and open spaces shape pedestrian-level airflow.

DESIGN
Supporting all SGP 2030 pillars

DEFEND AGAINST CLIMATE CHANGE
Supporting Resilient Future Pillar

Designing wind corridors and green spaces through data-driven planning

Our refreshed campus masterplan used microclimate and prevailing winds data from a dense campus sensor network and CFD modelling to optimise wind corridors and green spaces, such as Kent Green. We have also reached two-thirds of our 100,000-tree planting target.

▲ The Decarbonisation Committee was set up in January 2026 under the University Sustainability and Climate Action Council, with members from the faculty, research and infrastructure teams to promote shared responsibility for decarbonisation and to use the campus as a living lab to evaluate and implement new solutions.

DIALOGUE
Supporting Sustainable Living Pillar

Strengthened shared accountability of carbon reduction targets with faculties

Developing faculty-specific action plans with Yong Loo Lin School of Medicine and Faculty of Science to contribute to overall campus decarbonisation efforts.

DEMATERIALISE
Supporting Sustainable Living Pillar

Achieved 73% reuse rate across canteen drink stalls

To promote waste sorting behaviour within the student community, 15 data-enabled Resource Sorting Stations were installed across hostels. Waste data accuracy was enhanced with the use of Optical Character Recognition technology to capture waste data collected by refuse trucks, while a hub-and-spoke food waste collection model increased on-campus food waste recycling. Together, these initiatives contributed to this year's recycling rate of 21%.

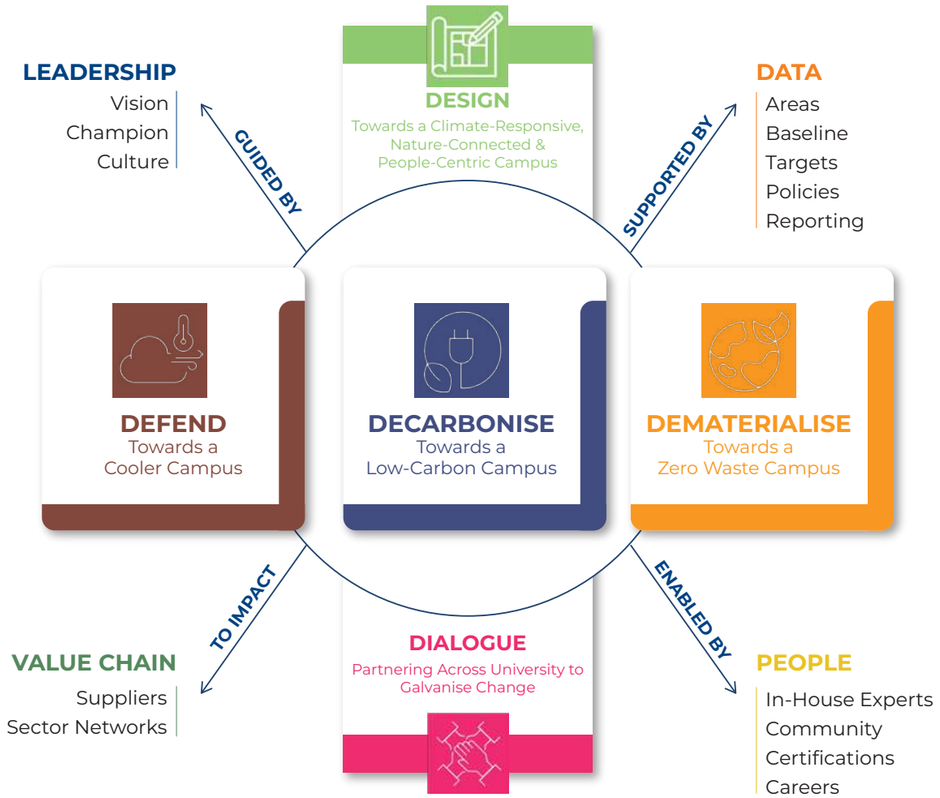
▸ Launched in August 2025, the BYO campaign promotes a culture of reuse by encouraging the campus community to bring and use reusable drinkware at beverage stalls across campus. The initiative helped avoid over 290,000 disposable cups, equivalent to avoiding approximately 3,500 kg of waste from being sent for incineration.

Ms Ute Braasch
Deputy President (Administration)

"We have made significant investments in developing a climate-resilient and low-carbon campus, which is a shared commitment across the University. Beyond physical infrastructure, we have a public service mission to cultivate sustainable mindsets and habits among our staff and students, who can influence and drive positive change beyond our campus grounds."

NUS Sustainable Campus Development Framework

Vision: A resilient campus, connected to nature, shaping sustainability together



Mr Koh Yan Leng
Vice President, University Campus Infrastructure

"Our campus serves as a living laboratory, where research-informed solutions in building design, energy systems and climate resilience are put into practice. As we continue to grow and evolve, we remain steadfast in our commitment to advancing our sustainability goals."

Summary of 2025 Achievements

Climate change, rising research and AI demands, and global resource pressures demand an integrated approach to sustainable campus development. NUS remains committed to building a sustainable and resilient campus, using our campus as a living lab to translate ideas into real-world applications, fostering joint accountability where staff and students embrace new practices and behaviours.

Designing a Climate-Resilient Campus for Vibrant Campus Life

Between 2020 and 2025, campus weather stations recorded a 0.42 deg C rise in average daytime temperatures, as the campus grew denser with new developments such as Valour House. Tackling rising temperatures requires breezy, shaded and green outdoor spaces. UCI has worked with the College of Design and Engineering's Cool-BEAM research team, leveraging weather station data to map prevailing winds and identify wind corridors under the refreshed Kent Ridge Masterplan. One example is Kent Green — a planned green space integrated with an existing hostel refresh, offering shaded areas for relaxation that harness natural winds.

Transiting into a Low-Carbon, Resource-Resilient Campus

Campus gross floor area has grown 6% since 2019 and is expected to reach 1.57 million m^2 by 2030 (13% increase) with 14 new buildings for research, student housing and generative AI computing. Unabated, this would drive a 33% rise in carbon emissions, from 113k to 151k tCO_2e by 2030. In 2025, Scope 1 and 2 emissions were 120k tCO_2e, compared to the 2019 baseline of 113k tCO_2e and 2024 value of 118k tCO_2e.

NUS has put in place a 2025-2027 Decarbonisation Plan targeting approximately 11k tCO_2e in annual reductions, bringing emissions towards 2019 baseline levels by 2027. We have commenced projects amounting to 7k tCO_2e of annual reductions with $20 million invested to-date, including Singapore's first laboratory building with dynamic ventilation ready by 2028–2029 and maximisation of campus solar PV capacity, targeting 12 MWp by 2028 and 14 MWp by 2030. We are setting ambitious energy-use and embodied carbon benchmarks for new or renovated buildings exceeding BCA's standards for various typologies — teaching space, office and laboratory. We are also progressively planning and upgrading existing chiller plant infrastructure.

Beyond our operational carbon, we specified embodied carbon targets and a preference for low embodied carbon construction materials in our construction projects to encourage value-chain decarbonisation.

Shaping Sustainability, Together

New practices require openness as habits are disrupted. We have engaged staff and students in Yusof Ishak House in transitioning from fully air-conditioned to hybrid-cooled spaces, where 73% reported satisfaction with thermal comfort in the canteen. On waste, we have engaged hostelites campus-wide to improve the recycling practices, stepped up on-campus food waste recycling and implemented a Bring-Your-Own campaign at canteens with 73% reuse adoption between August 2025 and March 2026, equivalent to over 3,500 kg of waste avoided from being sent for incinerated. Overall, recycling rate improved from 19% to 21%.

Shared ownership of sustainability targets is also taking shape. Yong Loo Lin School of Medicine and the Faculty of Science worked with UCI on energy reduction initiatives in 2025. NUS also established a Decarbonisation Working Committee — comprising faculties, researchers and UCI — to develop the next Decarbonisation Plan for 2028-2030. UCI also partnered with the Office of Student Affairs (OSA) to nurture student leaders from NUS Students' Association for Visions of the Earth (NUS SAVE) students in re-establishing a Sustainability Fund for students. Other units across NUS's administrative cluster also contributed to sustainability, from sustainable procurement to the continuation of Green Bond tokenisation initiative.

An overview of our campus sustainability Targets and Performance in 2025 can be viewed in the NUS Sustainability Report 2025.

Defend Against Climate Change

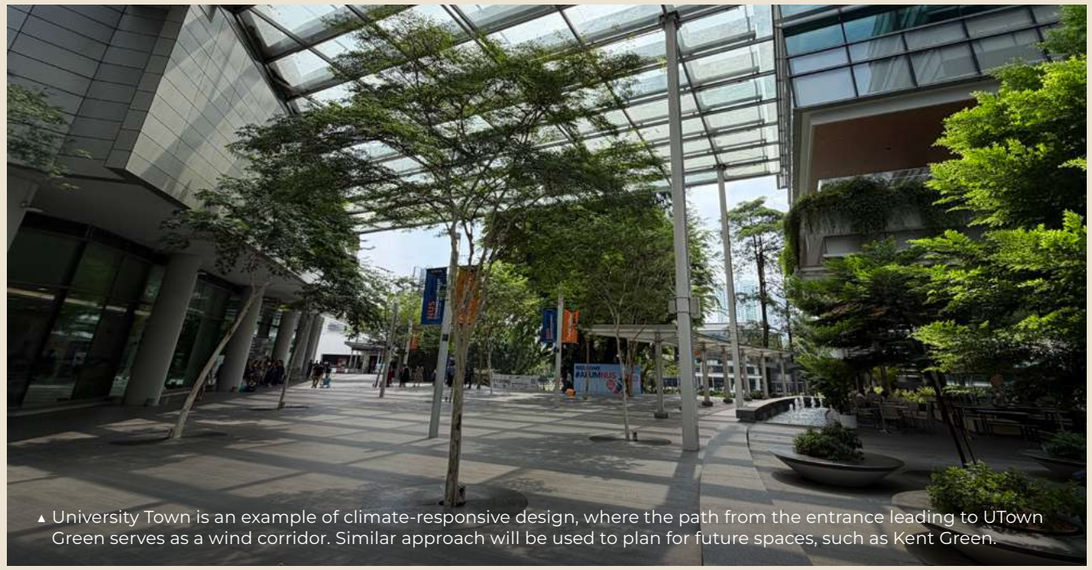
Towards a Cooler Campus

Assistant Professor Ang Yu Qian
Principal Investigator of Cool NUS-BEAM project, College of Design and Engineering

"With the sensing and modelling foundation of the campus' microclimate conditions established in a digital twin, forthcoming research work will translate these insights to support climate-responsive campus design."

▲ The digital twin is built by the Cool NUS-BEAM team, fusing real-time sensor data, 3D building and greenery models, satellite imagery, and machine learning into a single interactive platform.

Building Wind Corridors & Green Spaces for a Climate-Resilient Campus



▲ University Town is an example of climate-responsive design, where the path from the entrance leading to UTown Green serves as a wind corridor. Similar approach will be used to plan for future spaces, such as Kent Green.

On campus, the average daytime temperature rose by 0.42 deg C between 2020 and 2025. To adapt to rising temperatures arising from climate change, we have been working with researchers from the College of Design and Engineering (CDE) in laying the groundwork for embedding climate resilience into campus urban planning and the built environment.

Key achievements include deploying a dense campus-wide microclimate sensor network — a first for any campus in Singapore — generating localised datasets on temperature and wind across the Kent Ridge campus that are integrated into a digital twin, and testing mitigation strategies such as cool paint and campus greenery. These efforts helped identify thermal hotspots, deepen our understanding of the campus' unique microclimatic conditions, and support Computational Fluid Dynamics (CFD) and outdoor thermal comfort studies for the campus masterplan.

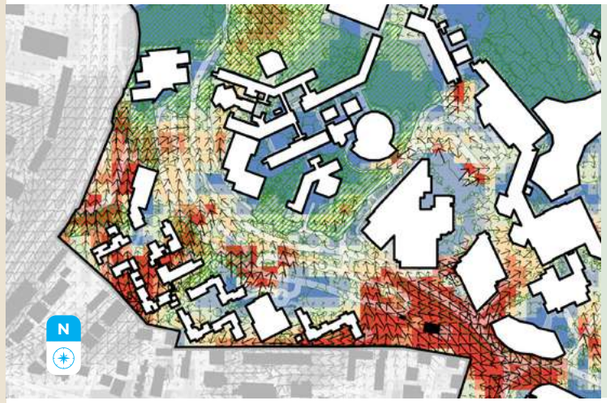
For campus greening efforts, an additional 12,901 trees were planted, bringing the accumulated total to 68,122 trees and reaching two-thirds of our target of 100,000 trees by 2030.

Moving from using microclimate data primarily for evaluating mitigation measures, we are now using the rich data to support the planning of a climate-responsive campus. To better incorporate such considerations upstream, we are applying the research team's campus-wide CFD study, which draws on data from our sensor network, directly into campus planning.

This approach has already informed the ongoing masterplan refresh, where NUS local boundary conditions from the CFD study were used to guide the planning of buildings and spaces across campus. This includes the planning of Kent Green, a new open green boulevard integrated with the rejuvenation of a hall that is set to be ready after 2030.

Our Strategy

Minimise, Reduce & Cope



Minimise Heat Built Up at Campus-Level by Harnessing Prevailing Winds

We are lessening the impact of heat by integrating climate-responsive design features like safeguarding wind corridors, and expanding green spaces and biophilic design in the refreshed Kent Ridge Masterplan (e.g. introducing a new, open green boulevard called Kent Green). For new buildings, we will enhance building users' access to greenery and ensure cross ventilation within the building.

Reduce at Building-Level

For existing buildings, we will use cool paint in façade renewal and painting works. A 2024 study conducted by the Cool-BEAM NUS team found that cool paint was found to be effective in reducing up to 1 deg C in CDE's precinct ambient air temperature during peak solar hours.

Cope At Individual-Level

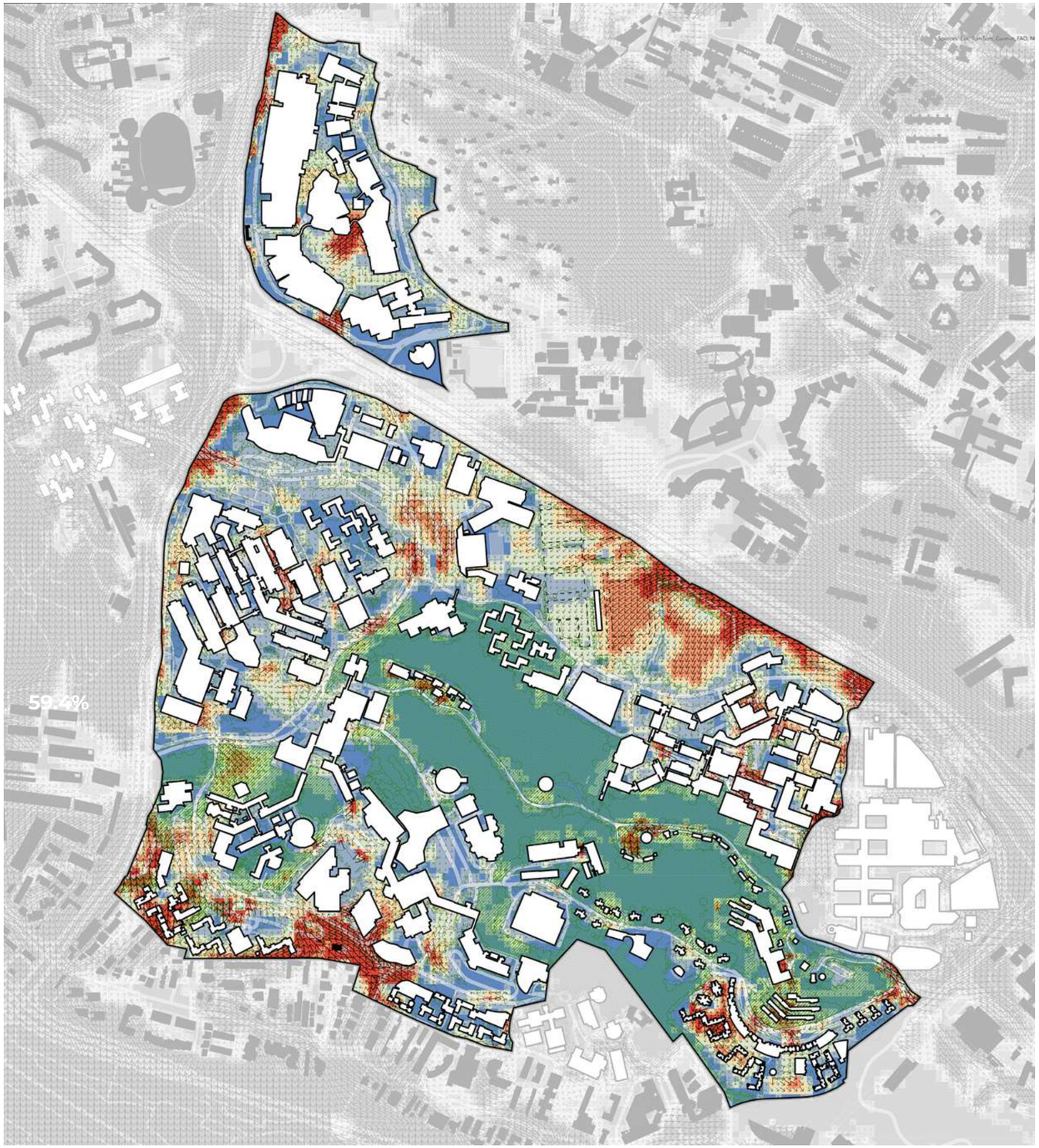
We supported our campus community in adapting to warmer outdoor conditions and higher indoor air-conditioning temperatures through infrastructure and workplace practices. These included the Yellow Ceiling Network to provide seamless sheltered connectivity across campus, encouraging lighter workplace attire through our staff dress code policy, and maintaining indoor air-conditioning setpoints at around 25 deg C where feasible, in support of the Government's Go 25 movement.

Wind Flows on Kent Ridge Campus

Located in southern Singapore, the wind pattern on the NUS Kent Ridge campus is influenced by sea breezes from the Singapore Strait. CFD was used to simulate the wind map of the Kent Ridge campus and its surroundings for a representative day and time (2 July 2024 at 2 PM), with a southerly wind of 2 m/s. The wind map shows the airflow pattern at pedestrian level (1.5 m above ground). The colours indicate wind speed, with wind speed increasing from blue to red. The arrows, scaled according to wind speed, indicate wind direction.

The wind map reveals a campus of contrasts. Open spaces with few or no buildings or trees, such as sports fields and large lawns, experience higher wind speeds. In contrast, buildings and vegetation obstruct airflow, reducing wind speed. Densely built precincts, such as the Engineering cluster and the residential areas at University Town, have low wind speeds below 0.2 m/s. Areas with dense vegetation also experience low wind speeds.

These contrasting wind zones matter for thermal comfort. In hot and humid Singapore, wind helps remove body heat and thereby improves outdoor thermal comfort. The wind map allows us to identify stagnant zones, some of which coincide with the heat hotspots identified in the thermal comfort map derived from our BEAM weather data. Identifying these areas allows targeted mitigation strategies to improve thermal comfort in campus planning. For instance, introducing building porosity or ventilation corridors in areas with stagnant airflow can help reduce wind blockage caused by buildings.



CFD Wind Simulation Map of Kent Ridge Campus

Data used based on 2 July 2024, 2pm, representing typical warm conditions with southerly winds.

Legend

WIND DIRECTION	WIND SPEED
Scaled by Wind Speed	Value
0.0 - 0.1	0.0 - 0.1
0.1 - 0.2	0.1 - 0.2
0.2 - 0.3	0.2 - 0.3
0.3 - 0.4	0.3 - 0.4
0.4 - 0.5	0.4 - 0.5
>0.5 m/s	>0.5 m/s

Buildings

Dense Vegetation

Tree

Assistant Professor Chew Lup Wai

Principal Investigator of Cool NUS-BEAM project, College of Design and Engineering

"We are conducting whole-campus simulations covering the campus and its surroundings, while incorporating terrain and greenery features to better understand their microclimatic effects and support campus greenery planning."

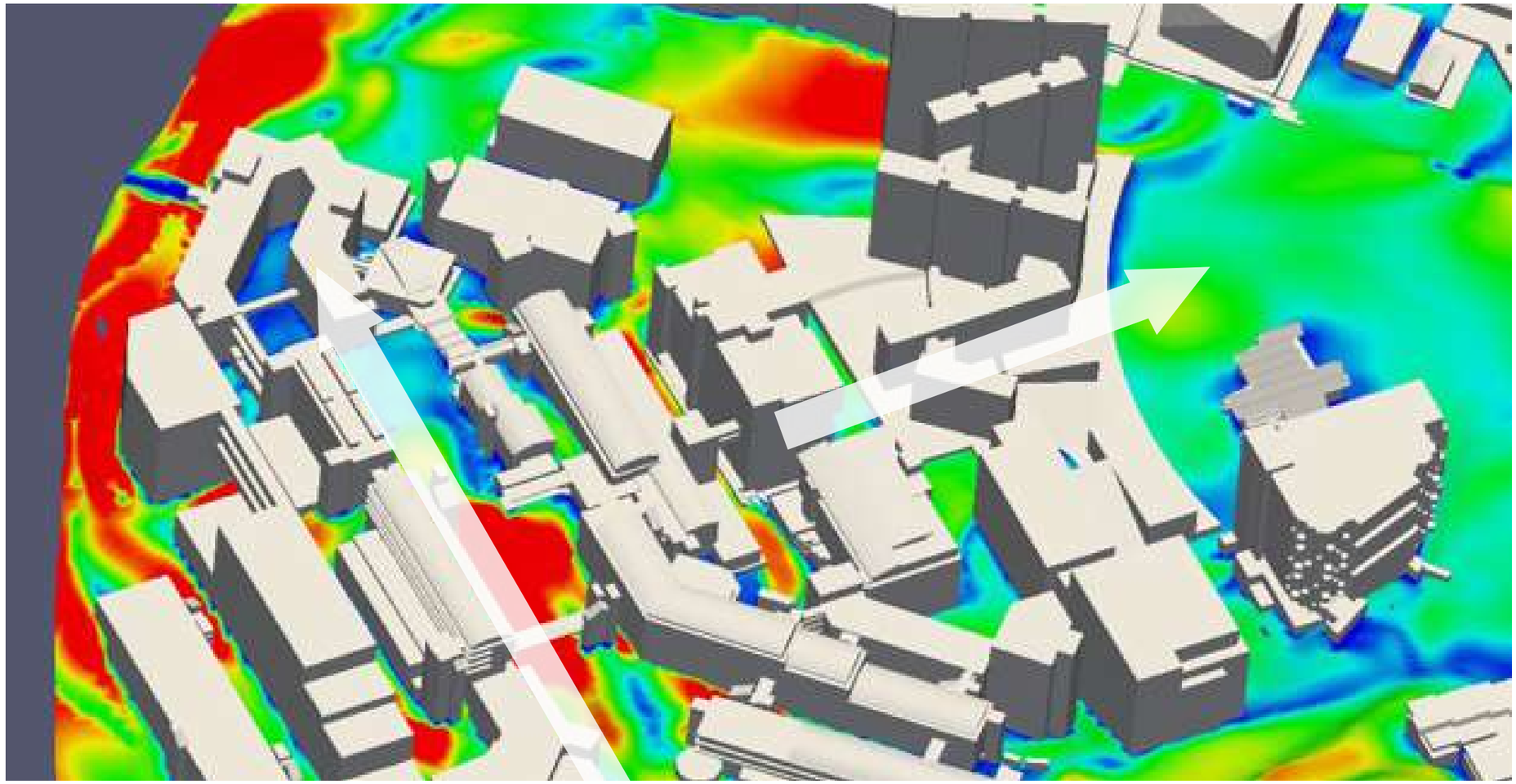
▶ MINIMISE

Localised Microclimate Data for Campus Planning

We are applying localised microclimate data to drive more climate-responsive campus planning and design. In the forthcoming research phase, the CDE research team will refine campus-specific CFD boundary conditions derived from local weather data, terrain analysis, and campus-scale modelling, enabling UCI's building project consultants to run simulations grounded in the campus' actual microclimatic conditions rather than Singapore-based models.

Preliminary boundary conditions have already been provided for the ongoing refresh of the campus masterplan in 2025, contributing to refinements in building massing, orientation, and spacing to enhance wind flow and preserve critical corridors. These insights have also informed how open spaces are planned to improve thermal comfort (e.g. a new green boulevard, Kent Green, will be integrated with the future rejuvenation of a hall), such as through wind corridor, shading, greenery, and garden configurations.

The CDE research team is working to further enrich the model by incorporating more complex greenery and vegetation effects. This will guide how our planting strategy balances the cooling benefits of vegetation with adequate ventilation across the campus, towards a more evidence-based approach to landscape planning.



◂ CFD studies were used to evaluate the wind flow when reviewing the planning of Kent Green and its surroundings.

Ms Ashley Wong
Head, Campus Planning and Management, University Campus Infrastructure

"Every place on campus is shaped by its buildings, greenery, and purpose. By anchoring our CFD studies in localised microclimate data, we move beyond simulation. We gain the insights to test and validate design decisions and ultimately craft a masterplan that does not merely react to climate change but responds with intention. The goal: a campus that is liveable, sustainable, and built for the future."

▶ MINIMISE

Harnessing Existing Winds in New Building Design

New buildings are oriented to harness existing wind flows for enhanced natural ventilation. For example, our new hostel, Valour House, captures northeast winds through ground-level voids and open corridors that enable cross ventilation within the building.

▲ Valour House (Green Mark Platinum) is NUS's first sports-themed hostel, designed to capture northeast winds for enhanced natural ventilation.

▶ REDUCE

Lowering Localised Temperatures

Our CDE research team has tested mitigation strategies, such as campus greenery and cool paint. The box stories below summarise their findings.

▲ Our nature ways across campus have flourished, such as the area near Central Library as shown in the images above, contributing to improvements in outdoor thermal comfort.

Greenery

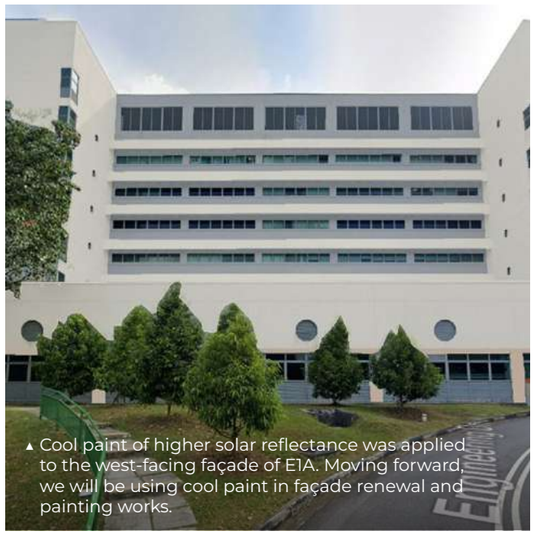
Over the past year, 12,901 trees were planted, bringing the cumulative total to 68,122. We are more than two-thirds of the way towards our goal of planting 100,000 trees by 2030.

Research on the NUS campus shows that greenery can reduce localised temperatures and improve thermal comfort mainly through shading and evapotranspiration. Strategic tree planting in sparsely vegetated areas lowered maximum ambient temperatures by up to 1 deg C, while shaded areas under tree canopies recorded mean radiant temperatures 10–20 deg C lower than exposed hardscapes. Dense greenery also created more stable microclimatic conditions. The benefits are strongest in open areas, while returns diminish in already green spaces, supporting selective planting of high-canopy trees to balance shade and ventilation.

Cool Paint

Research on the NUS campus shows that cool paint can reduce localised temperatures by increasing façade solar reflectance and lowering heat absorption. In the E1A trial conducted in 2024, cool-painted façades recorded external surface temperatures up to 7.1 deg C lower during peak hours, with average weekly reductions of 1.7 deg C, while internal surface temperatures fell by up to 3.3 deg C. This also reduced conductive heat gain through the façade by 33% over a week.

The surrounding ambient air temperature was lowered more modestly, by about 0.27 deg C on average over 24 hours and by 0.4–1.0 deg C during peak solar hours in the Engineering precinct, with stronger effects under sunny conditions and on darker original façades.



▲ Cool paint of higher solar reflectance was applied to the west-facing façade of E1A. Moving forward, we will be using cool paint in façade renewal and painting works.

Decarbonise

Towards a Low-Carbon Campus – Reductions First

Mr Kevin Loh
Director, Division of Campus Asset Management, University Campus Infrastructure

"We are decarbonising our campus by integrating both operational and embodied carbon considerations in design and striving for best-in-class performance for new and retrofitted buildings."

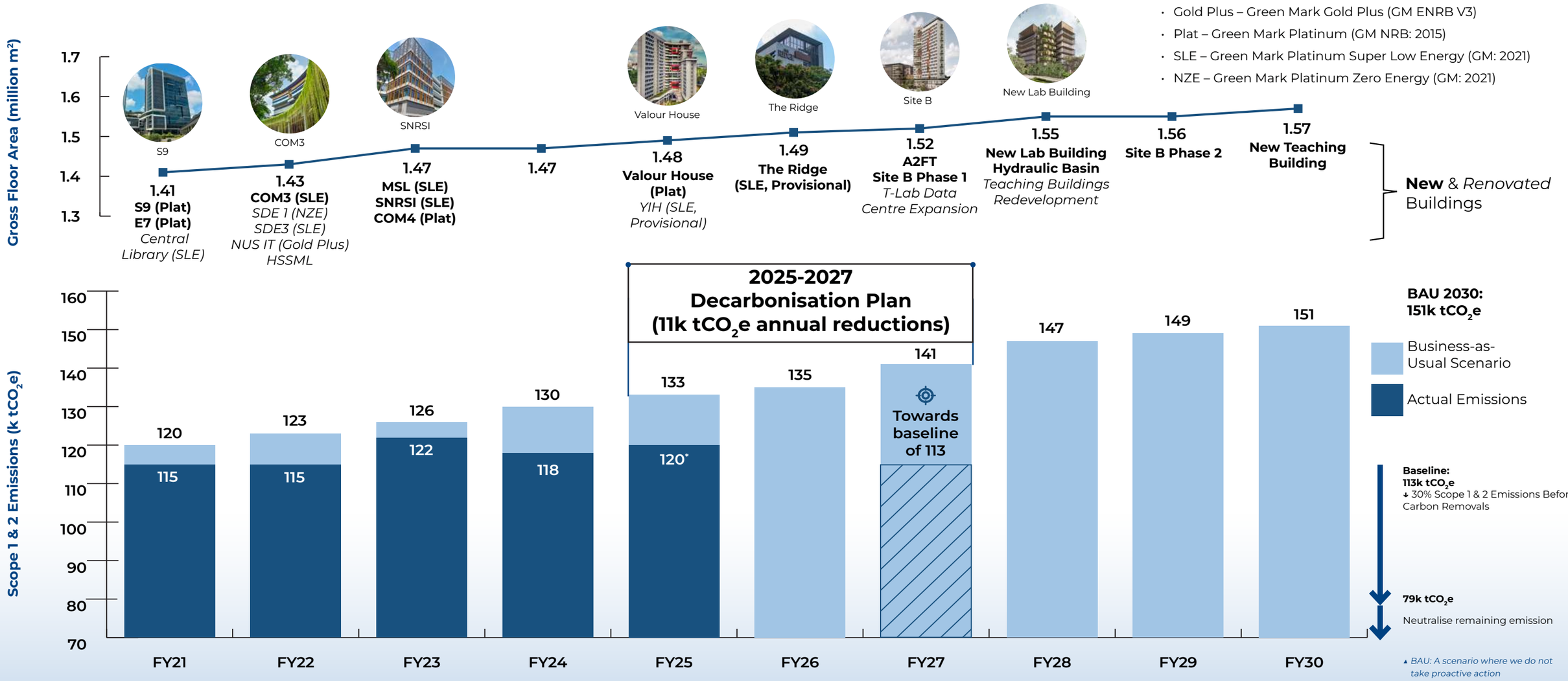
▲ A new sustainable and resilient laboratory building along Kent Ridge Crescent aims to achieve an Energy Usage Intensity of around 250 kWh/m² and an embodied carbon intensity of 500 kgCO_2e/m².

Managing Emissions from Campus Growth with Low-Carbon Buildings

Between 2024 and 2025, the campus gross floor area grew by 1% to 1.48 million m², contributed by the launch of Valour House, a new hostel with Green Mark Platinum certification. We also retrofitted Yusof Ishak House, a student hub with Green Mark Platinum Super Low Energy (Provisional) certification.

We are adopting a building typology approach to demonstrate best-in-class building energy performance. A new laboratory building, scheduled to open in 2028, is designed to achieve a best-in-class Energy Usage Intensity (EUI) of around 250 kWh/m². We have operated the SDE building cluster (SDE 1, 3 and 4), comprising teaching spaces, with Positive Energy performance since March 2026. Similarly, Ventus, the main office of UCI, is on track to attain Net Zero Energy status by end 2026.

Following previous data centre modernisation efforts, we attained BCA-IMDA Green Mark (Platinum) for T-Lab data centre in 2025 and are targeting an overall Power Usage Effectiveness (PUE) of 1.3.



* 84% of campus solar energy generated (4.0k tCO_2e) was used to generate Renewable Energy Certificates for additional revenue and was not counted towards emission reduction efforts.

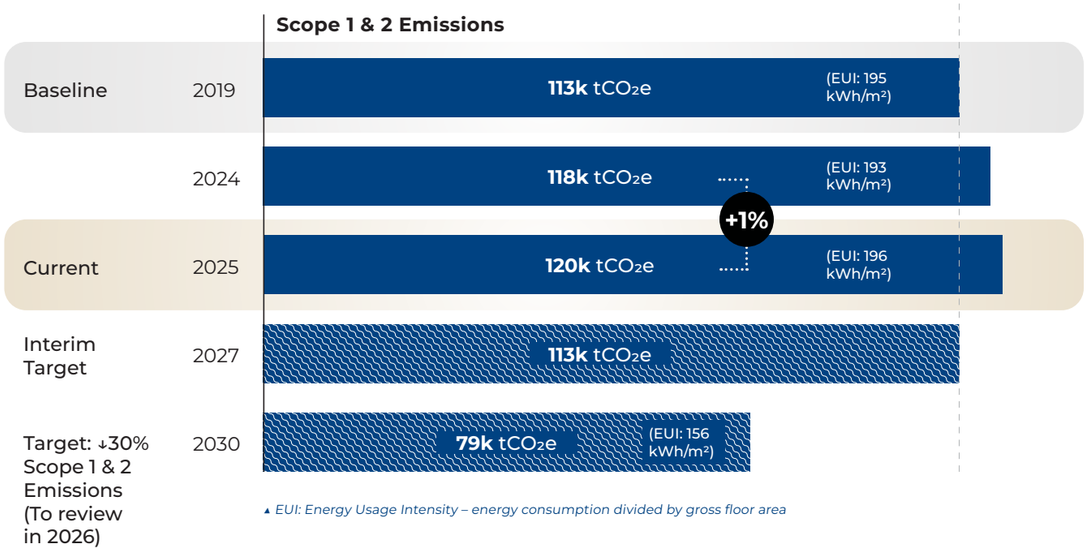
2025 Performance

Commenced 7k tCO_2e of projects under 3-Year Decarbonisation Plan

In 2025, our Scope 1 and 2 emissions were 120k tCO_2e. Scope 1 emissions increased to 4k tCO_2e, where the increase of 1.7k tCO_2e was mainly due to higher refrigerant top-ups arising from ageing infrastructure and pipe leakage from wear and tear. We will be enhancing preventive maintenance measures and leak inspections to mitigate this.

Scope 2 emissions marginally increased to 116k tCO_2e, with campus Energy Use Intensity (EUI) rising to 196 kWh/m2 from 193 kWh/m^2, driven by new energy loads from new buildings and existing data centres. 84% of campus solar energy generated (4.0k tCO_2e) was used to generate Renewable Energy Certificates for additional revenue and was not counted towards emission reduction efforts. Potential increases in electricity consumption were managed through our multi-year decarbonisation efforts from 2021 to 2024, which have collectively delivered 7k tCO_2e in reductions. The energy reduction projects completed in 2025 were the upgrade of University Cultural Centre chiller plant (0.9 GWh; 0.4k tCO_2e) and ventilation optimisations in S9 (0.7 GWh; 0.3k tCO_2e).

Building on this momentum, we have established a 3-year Decarbonisation Plan (2025–2027) to further mitigate emissions, with the aim of delivering 11k tCO_2e in annual reductions and bringing emissions down to 2019 baseline levels by 2027. Of the 11k tCO_2e reduction target, 7k tCO_2e worth of projects have already commenced, with key projects being the operationalisation of dynamic ventilation technologies for laboratories — a first in Singapore — and teaching facilities. These carbon savings would be equivalent to around $3,500,000 in annual energy cost savings and the annual electricity consumption of 3,700 4-room HDB flats. See table in the following page on the various carbon reduction projects under the Plan.



▲ *EUI: Energy Usage Intensity – energy consumption divided by gross floor area*

Our Strategy

Avoid, Reduce, Replace First

To reduce Scope 1 and 2 emissions, we have a four-pronged decarbonisation strategy — Avoid, Reduce, Replace and Neutralise. Given that our projected 2030 Business-as-Usual (BAU) emissions have increased by 13% since 2022, we will be reviewing our 2030 carbon neutrality target in 2026 to ensure it remains ambitious yet achievable considering the increased operational footprint and Singapore's developments in the built environment and renewable energy sectors. We will strive towards net zero emissions by around 2045.

▶ AVOID

Strive for best-in-class and optimal energy performance for new buildings and retrofits in design and operations

- Design stretched operational & embodied carbon targets for new buildings & retrofits
- Ensuring optimal energy performance

▶ REDUCE

Increase campus-wide efficiency and reduce energy consumption across building types, with 3-year Decarbonisation Plan

- Chiller plant optimisation & upgrading
- LED replacement & optimisations
- Labs: Manual & dynamic optimisation of ventilation rates, energy-efficient equipment
- Teaching facilities & offices: Manual & dynamic optimisation of ventilation rates
- Hostels: Green Hostels Programme

▶ REPLACE

Maximise campus solar PV capacity

- Campus rooftop solar PV
- Explore alternative solar PV deployment options (e.g. solar canopy)

▶ NEUTRALISE

As a last resort, procure carbon removals to balance residual emissions

Started 3-Year Plan

In 2025, the Energy Management Working Group has progressed on developing targeted projects to drive emissions down to baseline levels by 2027. The table charts our progress achieved from 2021-2024 and sets out the carbon reduction projects for 2025-2027.

Approach	Measures	Completed (2021 – 2024)	Commenced/ Implementing (2025 – 2027)*
Reduce (campus-wide)	**Chiller Plant Optimisation & Upgrade**	▸ Invested $2.2 million for Bukit Timah chiller plant upgrade (0.2k tCO_2e) ▸ Invested $8.2 million for University Cultural Centre chiller plant upgrade (0.4k tCO_2e)	▸ Feasibility study for **COM2 & I3 chiller plant upgrade (1.1k tCO_2e)**
	Campus Wide LED Replacement	▸ Invested $2.9 million for 1st batch of buildings (Ventus, MD6, University Hall, Sports, BIZ1) (0.6k tCO_2e)	▸ Estimated project cost of $2.1 million to-date for **Faculty of Arts & Social Sciences and hostels (1.2k tCO_2e)**, towards achieving 100% LED replacement with the remaining eligible buildings (1.8k tCO_2e)
Reduce (building type)	**Green Labs** *Reducing from airside (e.g. air change rates), cooling and equipment & lighting*	▸ Invested $2.8 million for campus-wide replacement of deep freezers (0.9k tCO_2e) ▸ Manual optimisations of set points and air change rates in MD6 (0.8k tCO_2e) ▸ Completed energy audits and energy modelling studies to develop interventions tailored to laboratories	▸ Manual optimisations of set points and air change rates in **S9 (0.3k tCO_2e)** and other lab bulidings such as MD1, CeLS, S1A (0.9k tCO_2e) ▸ Trialing **dynamic air change rates in a lab in MD6 (1.9k tCO_2e)**, with an estimated total project cost of $5.9 million, where energy modelling study estimated 15% energy savings, before scaling up within MD6 and to more lab buildings
	Green Teaching Facilities & Offices *Reducing from ventilation, lighting and BMS optimisations, dynamic control of lecture theatres*	▸ Ongoing manual optimisations of setpoints and lighting (0.2k tCO_2e)	▸ Estimated project cost of $1.1 million towards **implementing dynamic control of air-conditioning in lecture theatres and seminar rooms (0.3k tCO_2e)** by installing a system that combines AI-enabled video analytics and booking system to determine real-time occupancy
	Green Hostels *Reducing from air-conditioning (e.g. operating hours) and lighting; behaviour change*		▸ Ongoing engagement with Hall Masters and hostelites to promote energy conservation, including proposed green hostel programme (1.2k tCO_2e)
Replace	**Campus Rooftop Solar PV**	▸ Invested $16.9 million for 9.2 MWp of solar PV capacity (4.3k tCO_2e)	▸ Estimated project cost of $7.5 million to accelerate the second phase of **campus-wide solar PV installation (2.2k tCO_2e)**, towards maximising total capacity to 12 MWp by 2028 (up from 10.2 MWp to-date) and 14 MWp by 2030
TOTAL		**7k tCO_2e**	**11k tCO_2e (7k tCO_2e commenced)**

* Figures for 2025–2027 represent projected carbon reduction estimates as of 2025 based on current planning assumptions and engineering estimates. Actual reductions achieved may differ due to factors including project implementation timelines, technology performance, operational changes, and finalisation of measurement/calculation approaches.

▶ **AVOID**

New Low-Carbon & Energy Efficient Laboratory Building in the Works

Scheduled for completion in 2028, a new sustainable and resilient laboratory building has been designed with an EUI target of around 250 kWh/m² that exceeds BCA's laboratory energy efficiency benchmark ranging from 300–500 kWh/m². This will be achieved by maximising naturally ventilated spaces, implementing hybrid cooling in office spaces and adopting demand-controlled air change modulation in laboratory spaces. These efforts are estimated to nearly halve air-conditioning energy consumption compared to a baseline scenario. It will also be the first building where we have specified low embodied carbon materials, striving towards an embodied carbon intensity target of 500 $kgCO_2e/m^2$.

Beyond carbon performance, the building is oriented northeast to harness prevailing winds and shading fins to minimise sun exposure. It is also designed to achieve a high Green Plot Ratio of above 5.0, giving users easy access and views to greenery throughout the building to enhance well-being. With these efforts, the building is aiming to achieve all BCA Green Mark Badges, demonstrating industry-leading performance in carbon reduction, health, intelligence, maintainability, and climate resilience.

▲ The new sustainable and resilient laboratory building will house sustainability-related research activities while aiming to demonstrate low-carbon performance.

▲ UCI and faculties, such as Yong Loo Lin School of Medicine and Faculty of Science, will work together on piloting new energy reduction technologies and initiatives.

▶ **REDUCE:** GREEN LABS, TEACHING FACILITIES & OFFICES

First Dynamically Ventilated Laboratory Building by 2028-2029

Building on past energy audits and an energy modelling study in 2025, MD6 is on track to become Singapore's first laboratory building with a dynamic ventilation system by 2028–2029. The system, currently under design, will adjust air change rates in real-time based on the needs of each space. It has potential to achieve about four times more annual savings of 4.5 GWh (1.9k tCO_2e) compared to manual optimisation, equivalent to 1,061 4-room HDB flats and $999,640 in annual energy cost savings. This puts MD6 on track to exceed its 20% energy reduction target, with reductions already at 12% in 2025 compared to 2022.

A similar approach using AI-driven video analytics is being implemented for lecture theatres and seminar rooms by 2027. If successful, these will be scaled to other applicable buildings and spaces. We have also partnered Yong Loo Lin School of Medicine and Faculty of Science on energy reduction interventions, such as manual air change rate optimisations in S9 that will save 0.7 GWh (0.3k tCO_2e) annually.

Professor Chong Yap Seng
Dean of Yong Loo Lin School of Medicine

"Yong Loo Lin School of Medicine is committed to progressing in managing energy consumption in our buildings and engaging our staff in integrating sustainable practices into research operations."

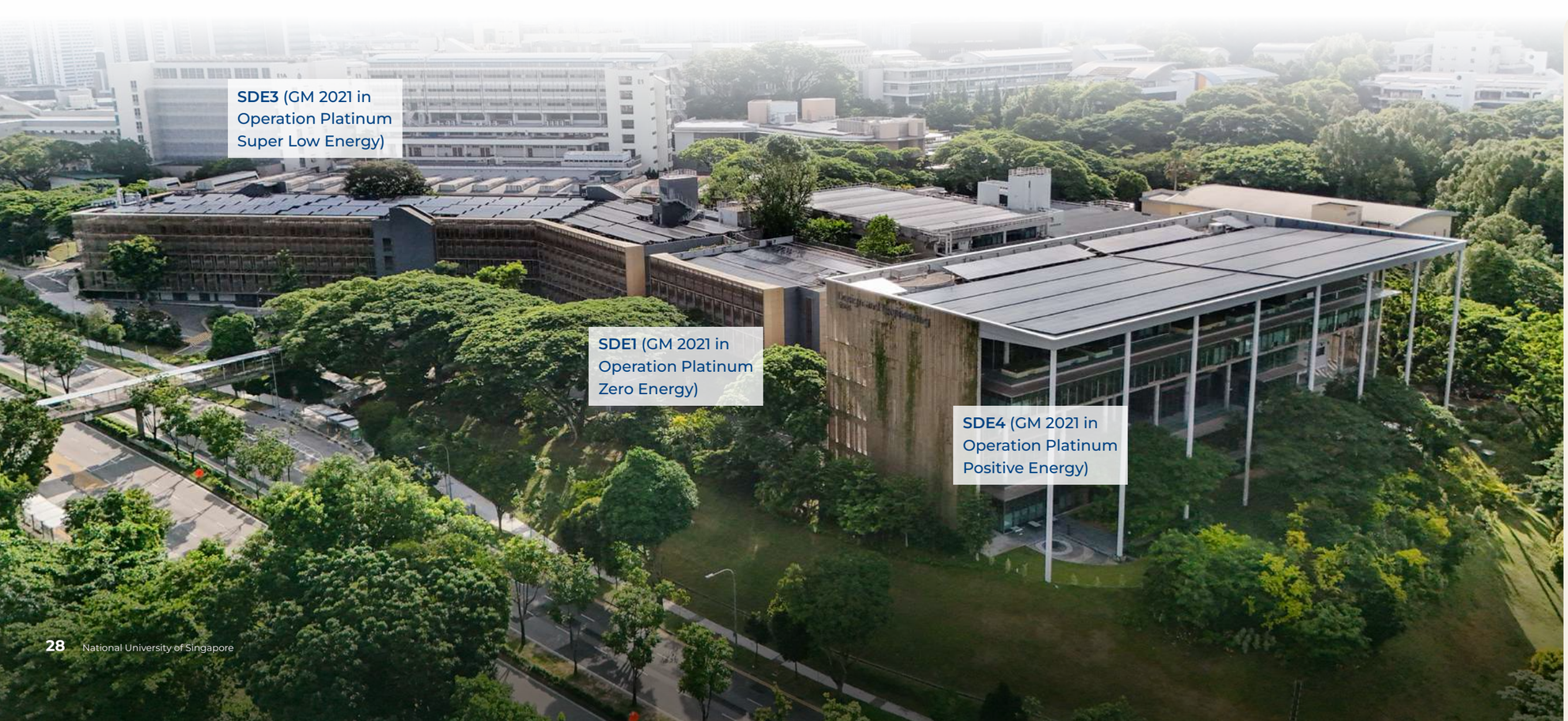
▶ REPLACE

First Net Positive Energy Building Cluster and Net Zero Energy Office Targeted in 2026

We are leveraging advancements in solar energy technology to push buildings towards achieving best-in-class energy performance. In 2025, we invested $0.7 million to install high-efficiency photovoltaic panels of 22–24% efficiency on SDE3 in collaboration with the Solar Energy Research Institute of Singapore (SERIS), where systems from different vendors were tested for operational performance. Following this addition, the SDE building cluster (SDE1, SDE3, and SDE4) reached a total solar capacity of 1,454 kWp. All three buildings achieved an Energy Use Intensity (EUI) of about 50 kWh/m², well under BCA's reference benchmark of 90 kWh/m² for institutes of higher learning. Collectively, this enables the cluster to generate at least 15% more energy than it consumes per year, setting it on track to be the first Net Positive Energy building cluster in Singapore by end 2026.

For Ventus, we reviewed and further optimised the solar panels' configuration, installing additional higher-efficiency panels to increase solar capacity from 140 kWp to 197 kWp. Coupled with energy reduction interventions such as dynamic ventilation with wireless thermostats and sensors in collaboration with the College of Design and Engineering, we are targeting an EUI below 50 kWh/m² from the current 54 kWh/m², positioning Ventus to become the University's first Net Zero Energy office building in end 2026.

On the broader solar front, following the completion of the first tranche of solar PV deployment, we are implementing the next tranche by 2028 to reach a 12 MWp capacity, towards achieving 14 MWp by 2030. To date, we have achieved 10.2 MWp of installed capacity, generating up to 12 GWh annually and generating Renewable Energy Certificates for sale. Beyond rooftop installations, we are also working with SERIS to pilot a solar canopy over a carpark by 2027. This serves as an alternative deployment solution that could further expand the campus' solar PV capacity potential.



Dr Thomas Reindl

Deputy CEO, Solar Energy Research Institute of Singapore (SERIS)

"SERIS is strongly committed to testbedding innovative and scalable renewable energy solutions on NUS campus to push the frontiers of decarbonisation."

Dematerialise

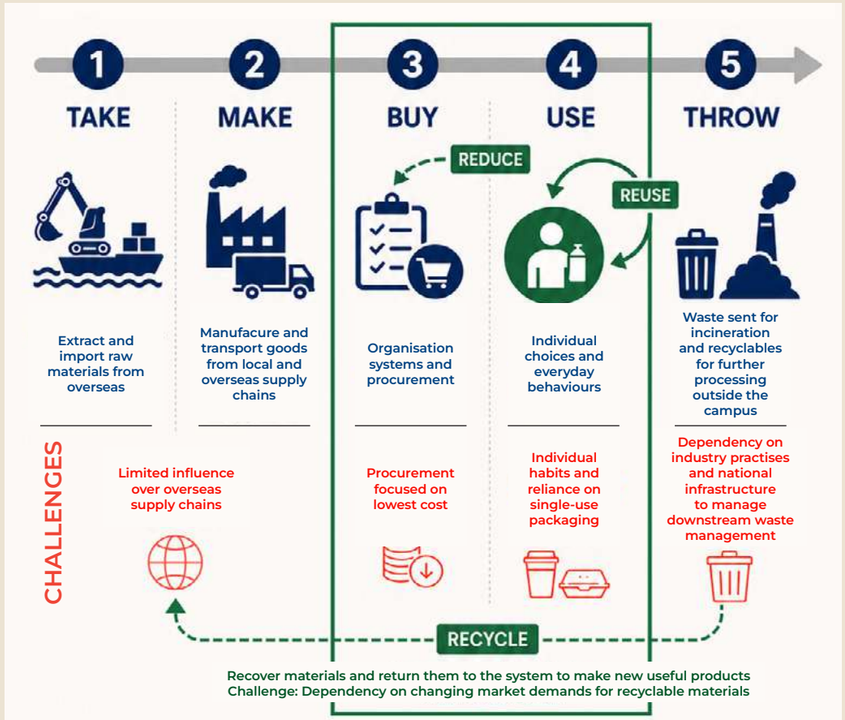
Towards Zero Waste

Mr Loo Deliang
Head, Sustainability Strategy Unit, University Campus Infrastructure

"Sustainable habits are enabled by the environments we create. By creating intuitive spaces and touchpoints for reuse and recycling, supported by clear and consistent messaging, we make the sustainable choice an easier one for our campus community."

▲ The BYO campaign, launched in August 2025, encourages staff and students in NUS community to bring reusable drinkware and reduce disposable takeaway cups. From left: Associate Professor Alberto Salvo (Dean's Chair, Faculty of Arts and Social Sciences), Ms Angie Liew (NUS Alumna, Global Studies, Class of 2025), and Ms Nuryanee Anisah (NUS Year 4 Business Administration Student).

Reducing Material Footprint Towards a Reuse Campus



With a vibrant campus population of over 50,000 students and staff, the University consumes significant quantities of materials and resources to support teaching, research, and campus operations.

The environmental impacts of these materials extend beyond waste generated on campus, encompassing resource extraction, manufacturing, and transportation across global supply chains.

To reduce the University's material footprint, we adopt a dematerialisation approach that minimises demand for new materials through responsible consumption, reuse, and recycling, while maximising the value and lifespan of resources already in circulation.

While material recovery from recycling remains an integral part of campus waste management, the priority is placed on upstream efforts to rethink and reduce consumption, and reuse to extend lifespan of materials before recycling or disposal.

In 2025, the University strengthened efforts to make reuse more accessible and as a routine practice on campus through behavioural interventions, operational changes and partnerships across the campus community.

2025 Performance

Building Norms for Reuse and Sorting

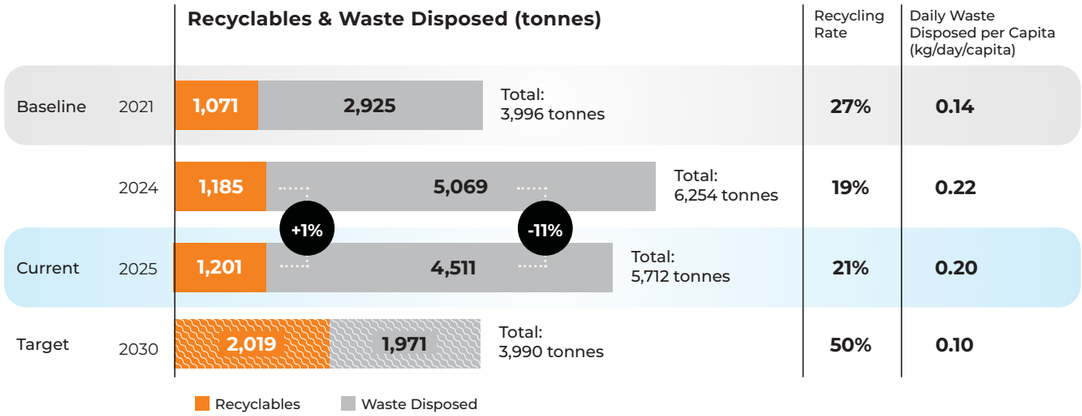
The University's recycling rate was 21% in 2025 compared to 19% in 2024, while total recyclables collected rose by 1% to 1,201 tonnes (2024: 1,185 tonnes). This improvement was supported by an increased food waste collection through the implementation of a hub-and-spoke model, which optimised the on-site treatment of food waste on campus.

Daily waste disposed per capita decreased from 0.22 kg/day/capita in 2024 to 0.20 kg/day/capita in 2025, indicating decrease in campus waste relative to population. Total waste disposed was 4,511 tonnes in 2025, compared to 5,069 tonnes in 2024. Additionally, the University introduced Optical Character Recognition (OCR)-assisted data capture for refuse truck operators from August 2025, improving data reliability and reducing manual recording discrepancies.

We are building new norms for reduce, reuse and recycle. Alongside operational improvements, we continued to foster waste reduction by making sustainable choices easier and more embedded in everyday campus life. To encourage proper waste segregation, we expanded recycling infrastructure with 113 Recycle Right bins in high-footfall areas and 15 Resource Sorting Stations in student residences, improving recycling accessibility and supporting better sorting practices.

We also promoted reuse through a campus-wide Bring Your Own (BYO) campaign to reduce reliance on disposable takeaway cups. Participating drink stalls offered a $0.30 discount for reusable containers and imposed a $0.20 charge for disposable takeaway cups. We achieved a 73% reuse rate, where reuse is defined by BYO and dine-in transactions. This reflects strong adoption of reuse practices across the campus community.

To reinforce a culture of waste reduction, the University partnered with the Office of Student Affairs and NUS Students' Union to introduce a Zero Waste Award at Rag & Flag 2025. The award recognised student teams that creatively repurposed campus waste materials in floats, props and costumes, encouraging students to view waste as a resource and embrace circular economy principles.



Our Strategy

Material Lifecycle Management

We take a material lifecycle approach to waste reduction, addressing wastages in procurement decisions, administrative services to responsible downstream waste management operations.

Upstream value chain influence (supply chain)

RETHINK
Extraction, Production & Distribution

REDUCE
To minimise use of new materials

Downstream value chain influence (staff and students)

REUSE
To extend material lifespan

END-OF-LIFE REPURPOSE
Recycle | Recovery | Disposal

NUS Sustainable Procurement Framework Highlights
With Central Procurement Office (Sustainable Procurement)

Source for sustainable options
- Embedding sustainability into procurement through GreenGov requirements, NUS Best Practices and Total Cost of Ownership considerations.

Source for sustainable suppliers
- Prioritising sustainable suppliers through sourcing evaluations, with up to 10% sustainability weighting for eligible procurements.

Supplier Engagement
- Driving supplier ESG performance engagement through the NUS Sustainability Questionnaire.

NUS Supplier Code of Conduct (SCOC)
- 10% scoring on sustainable procurement criteria introduced in 2023

Mr Pang Chong Ning
Chief Procurement Officer

"Procurement plays a pivotal role in advancing the University's sustainability goals. By embedding sustainability into how we source goods and services, we are strengthening supply chain resilience, encouraging responsible business practices, and creating lasting value for the University and the wider community."

Zero Waste Roadmap 2030
University Campus Infrastructure (Waste Resource Management)

Digitalisation for operational efficiency and evidence-based progress tracking
- Enhanced bin-centre waste data quality by introducing OCR-assisted data capture for refuse truck operators, improving reliability of tonnage records.

Drive resource conscious culture on campus to divert waste from incineration
- Deployed 15 data-enabled Resource Sorting Stations with 12 supported by Cora Environment across student hostels in Q4 2025
- Launched annual campus- wide Bring-Your-Own reusable container campaign in 2025
- Introduced Zero Waste Award at NUSSU RAG and Flag 2025 to encourage students to apply circular principles by reusing campus waste materials in float construction

Technology in closing food and plastic waste loop
- [Completed 2022] Food waste from campus dining facilities was converted into compost for campus landscaping through three on-site aerobic digesters.
- [Completed 2024] Installed WasteMaster dehydrator system to transform food waste into substrates for processing into potential aquaculture feed and/or biofuels.
- [Completed 2024] To close plastic waste loop, PET-1 plastic bottles collected on campus were exported to an established recycling vendor in Malaysia to be turned into food-grade recycled PET-1 (rPET-1) resins, reducing reliance on virgin plastic. Other packaging plastic materials such as polypropylene (PP) and high-density polyethylene (HDPE) were collected for repurposing into bituminous mix for road paving.

Over 70% of Drinks at Drink Stalls Served in Reusables

In August 2025, we implemented a campus-wide campaign to reduce reliance on disposable takeaway packaging by combining incentives for reusable containers with a disincentive charge on disposables.

The campaign was rolled out for beverages across campus-wide canteens and food courts. In its initial phase, timed to coincide with SG60 celebrations, staff and students who brought their own bottles or cups when buying a beverage at drink stalls received a 60-cent discount, while a 20-cent charge was applied to disposable cups. After one semester, the discount was adjusted to 30 cents while the disposable cup charge was retained. The campaign was also expanded to fruit juice stalls.

The initiative was implemented across campus drink stalls and achieved a 73% reuse rate, measured by the proportion of BYO and dine-in transactions relative to total transactions. Reuse rates remained stable following the adjustment of the incentive, indicating sustained adoption of reusable container practices among students and staff. 290,281 disposable cups, equivalent to around 3,659 kg of waste, have also been avoided from being used and incinerated.

Revenue collected through the disposable cup charge was channelled to the NUS SAVE Sustainability Fund, which supports student-initiated sustainability projects on campus. This approach links everyday consumption choices with student-led sustainability action and enables the campus community to contribute directly to environmental initiatives.

NUS will continue to progressively extend reuse practices to more food and beverage outlets, supporting broader adoption of BYO behaviours across campus dining.

Empowering Student-led Sustainability Action

The NUS SAVE Sustainability Fund (SusFund) supports ground-up sustainability initiatives led by students and members of the NUS community. Managed by NUS Students' Association for Visions of the Earth (SAVE) and supported by UCI, the fund provides grants for projects that promote environmental stewardship, resource conservation and sustainable behaviours on campus. By empowering the NUS community to develop and implement sustainability solutions, SusFund helps foster a more resource-conscious culture.

Ms Chrisye Cheong
President, NUS Students' Association for Visions of the Earth
33rd Management Committee 2025/2026

"Single-use disposables pollute our health and environment with microplastics, but choosing to reuse gives us the agency to take action. Carrying a reusable bottle is a simple habit we can all adopt as students to cut waste and do our part for our future."

▲ Campaign messages were positioned at prominent touchpoints around canteens, including drink stall fronts and large wall spaces, to maximise visibility and encourage sustainable choices at the point of action.

▲ Drink stall tenants integrated reusable cup management into daily back-of-house operations, including supporting reusable cup rental system trials at selected canteens, contributing to holistic efforts to normalise reuse as part of campus dining experience.

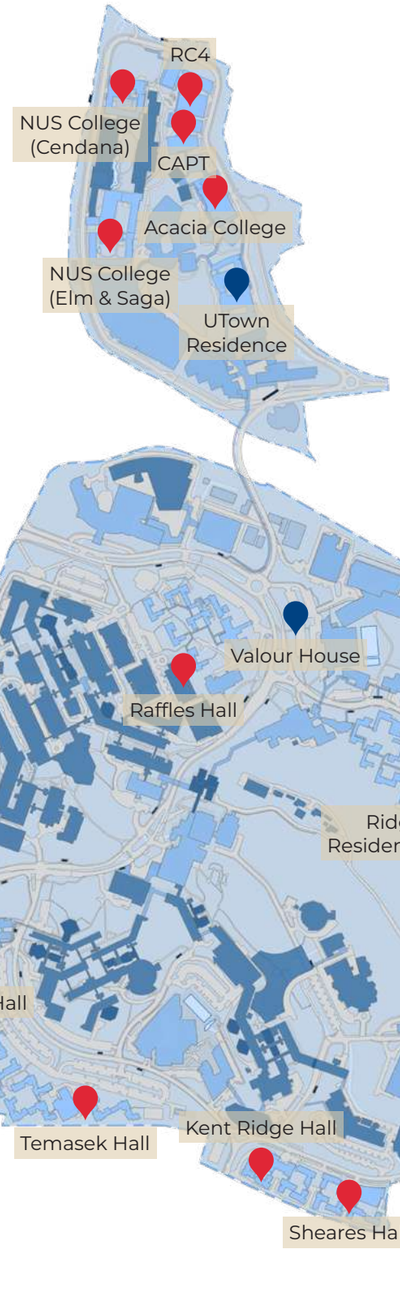
Shaping Hostel Infrastructure for Sorting Culture

In 2025, we completed the rollout of 15 data-enabled Resource Sorting Stations (RSS) across all student hostels to encourage waste segregation and track recycling habits, towards driving mindful sorting practices in hostels.

Turning infrastructure into action requires strong community participation. At LightHouse, Residential Life staff partnered with student leaders to organise an inter-block recycling competition that combined peer influence, visible participation, and friendly competition to encourage waste sorting. Over the five-week challenge, the proportion of residents using the RSS increased from approximately one in eight residents to one in three. The strongest shift was observed in Block 28, where more than three in four residents had sorted recyclables at least once, helping to establish recycling as a visible and shared community norm. Student leaders encouraged residents to set aside recyclables in their rooms and coordinated recycling deposits at the RSS to drive active and visible participation. This community-led effort at Block 28 accounted for 80% of the residence's total recycling volume during the challenge.

Recognising the growing importance of resource-conscious living amid global energy and resource challenges, we will introduce a year-long green hostel programme in the next academic year. The programme will combine sustainability education with initiatives focused on improving recycling and responsible energy use, helping to embed environmental stewardship into everyday residential life.

▲ Single-stream recycling is supported through relabelled recycling chutes and end-of-semester checkout collection drives for reusables and recyclables.



12 sets of central recycling points with Cora REHub to track paper recycling. Paper recyclables account for more than 70% of recyclables collected in hostels.

3 RSS with load cells and sensors to track collection of single-stream recyclables: PET bottles, HDPE containers, metal cans, glass, cardboard/ paper.

Associate Professor Chen Zhi Xiong
Master of LightHouse

"Hostel life is a crash course in living well with ourselves and others. Sorting recyclables is a low effort, high yield example of that: five bins, ten seconds, and a clear environmental conscience. It is a habit that makes peace between the world we live in and ourselves."

Dialogue:

Institutionalising Shared Sustainability and Carbon Targets

▲ The Decarbonisation Committee, created under the auspices of the University Sustainability and Climate Action Council, is tasked with developing a viable low-carbon transition pathway to guide NUS towards achieving net zero emissions by 2045.

Mr Koh Yan Leng
Vice President, University Campus Infrastructure

"Sustainability is evolving from a shared aspiration to a University-wide responsibility. The establishment of the Decarbonisation Committee demonstrates our commitment to good governance, bringing together faculty and administration to drive targeted and accountable climate action."

Strengthening Campus Sustainability Governance at NUS

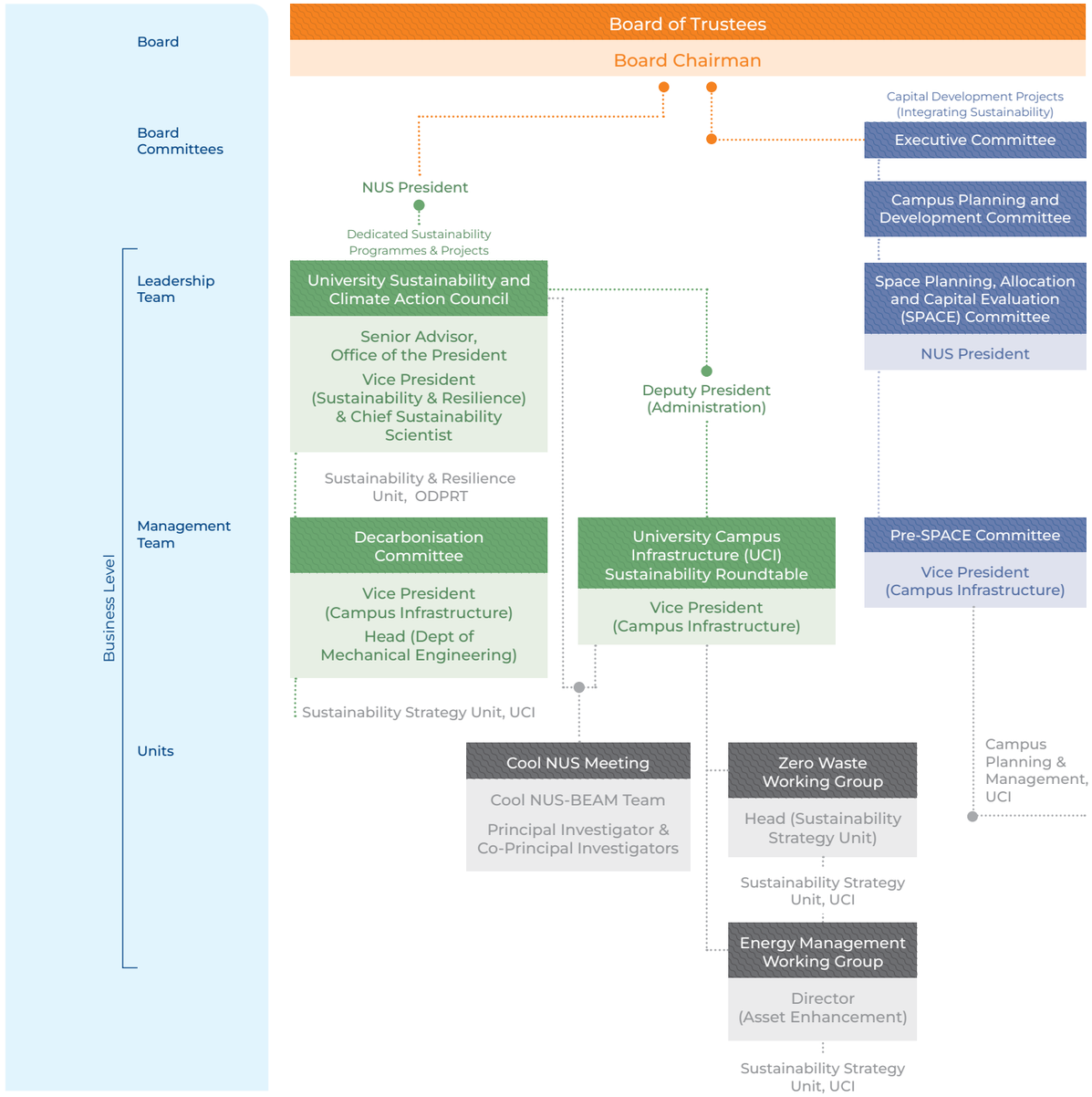
Sustainability at NUS is governed through a clear cascade of responsibility – from board-level oversight, to university management direction, to cluster-level coordination, and unit-level execution. This reflects a maturing governance model where sustainability is increasingly embedded across leadership, decision-making and day-to-day campus operations.

Building and infrastructure sustainability strategic matters are reported through the **Campus Planning and Development Committee (CPDC)*,** a Board committee. Through this platform that is held quarterly, the University has advanced key priorities such as decarbonisation roadmap, high-performance sustainable buildings, carbon assessment, shadow carbon pricing and targets for building projects. The Committee comprises Board and co-opted members with distinguished expertise in architecture, engineering, and corporate management. This expertise helps set the strategic direction for campus sustainable development and integration of sustainability into long-term campus planning, development and financial sustainability of the University's land and buildings.

Supporting the CPDC are the **Space Planning, Allocation and Capital Evaluation (SPACE) Committee**, chaired by NUS President, and Pre-SPACE Committee chaired by Vice President (Campus Infrastructure). Together, these committees translate strategic direction into leadership-level evaluation of building and infrastructure projects, including assessing the environmental impact for new or rejuvenated spaces. In doing so, they consider the potential operational sustainability and carbon impacts of the proposed projects and identify opportunities and associated financial costs to address these impacts upfront at an early stage.

At the university management level, the **University Sustainability and Climate Action Council (USCAC)** was reviewed in 2025 to more nimbly address sustainability challenges and chart the next phase of its sustainability journey. Chaired by Senior Advisor, Office of the President, and supported by Deputy Chair, Vice President (Sustainability and Resilience), the refreshed USCAC, meeting at least thrice a year, introduced **dedicated sub-committees** on Education, Research, Campus Decarbonisation and Communication & Outreach. This reflects the maturity of sustainability governance evolving towards distributed accountability across Education, Research and Administration clusters across the University.

* The composition and key terms of reference of the CPDC are provided on pages 31 and 34, respectively, of the NUS Annual Report 2025.



▲ Energy audits of energy-intensive laboratory buildings conducted by UCI provided the basis to discuss targeted energy saving measures with faculties and schools.

Shared Ownership for Campus Decarbonisation

The Working Committee on Campus Decarbonisation, or **Decarbonisation Committee**, meets at least thrice a year, and is co-chaired by Vice-President (Campus Infrastructure) and Head of Department of Mechanical Engineering, College of Design and Engineering. The Committee is tasked with developing a viable low-carbon transition pathway to guide NUS towards achieving net zero emissions by 2045, in alignment with GreenGov's target. More importantly, it promotes shared responsibility for decarbonisation across faculties, schools and administrative domains.

This is an improvement from the previous model, where campus decarbonisation was led primarily by UCI. As progress increasingly depends on operational changes within energy-intensive research facilities owned by faculties and schools, ownership must extend beyond a central sustainability function. Under the Decarbonisation Committee's oversight, faculty- and school-level decarbonisation plans are being developed, monitored and tracked, with collaborative action plans already underway with Yong Loo Lin School of Medicine, Faculty of Science (FOS), and School of Computing, etc.

For example, the FOS Decarbonisation Plan operates across four pillars of Policy, Engagement, Optimisation and Reporting. Under Policy, sustainability metrics are embedded in laboratory equipment tenders, and fume hood compliance is mandated. Engagement drives culture change through bi-annual awareness days and structured Green Lab sign-ups. Optimisation targets equipment consolidation, decommissioning of high-energy assets, and best operational settings — including ultra-low temperature freezer setpoints at -70°C instead of -80°C. The key roles are shared across UCI, FOS Dean's Office, departments, and lab managers to promote accountability at every level.

Professor Ang Wee Han
Vice Dean (Special Projects), Faculty of Science

"Through our FOS Decarbonisation Plan, we are embedding sustainability directly into how we procure equipment, manage our labs, and engage our research community. This will be a collective effort — from researchers to administrative staff — and we are putting the structure in place, to deliver that commitment."

Embedding Accountability Across All Levels

Recognising the role of management accountability in meeting institutional climate targets, NUS introduced a decarbonisation key performance indicator into the balanced scorecard of selected management members from 2024. By linking decarbonisation outcomes to management performance, the University is strengthening ownership and accountability, and embedding sustainability more firmly into decision-making.

Sustainability is becoming more embedded in cross-functional department planning and coordination. Held twice yearly, the **UCI Sustainability Roundtable**, chaired by Vice-President (Campus Infrastructure), brings together UCI divisions to strengthen collective ownership and contribution to campus sustainability efforts. Taking a partnership approach, the Sustainability Strategy Unit (SSU) is increasingly enabling, partnering and integrating sustainability into the work of other divisions and units. One example is the collaboration between SSU and Housing Services to strengthen recycling and sorting norms among hostelites.

At the unit level, accountability is embedded in the structures that drive implementation. **The Energy Management Working Group**, chaired by Director, Asset Enhancement Section under the Division of Campus Asset Management, was established to develop, implement and track the 2025-2027 Decarbonisation Plan. The **Zero Waste Working Group** brings together representatives from administrative departments, such as the Central Procurement Office, and UCI divisions to design, implement and review projects targeting priority waste streams. Both working groups meet quarterly. Working together with UCI, **Cool NUS-BEAM** research team, meeting at least twice a year, turns the campus into a living lab, combining on-site sensing, mitigation testbeds, and a digital twin platform to monitor, test and evaluate cooling strategies at campus scale.

Level of governance	Governance body	Roles and responsibilities	Meeting/reporting cadence
Board	Campus Planning and Development Committee (CPDC)	Provide oversight of the strategic planning and development of the University's land and buildings.	Quarterly
Management	University Sustainability and Climate Action Council (USCAC)	Lead and integrate sustainability in NUS' education, research and innovation, as well as operations and administration.	At least thrice a year
	Working Committee on Campus Decarbonisation ("Decarbonisation Committee")	Enable collective ownership, contribution, and accountability for decarbonisation efforts for Scopes 1 and 2 emissions (as a priority) across faculties, schools, student life and administration in NUS.	At least thrice a year
Cluster	University Campus Infrastructure (UCI) Sustainability Roundtable	Co-develop, track and deliver an annual campus sustainability workplan, in alignment with the Campus Sustainability Roadmap 2030; track and report sustainability indicators; and embed sustainability into UCI work practices.	Biannual
Division/Unit	Energy Management Working Group	Deliver the three-year decarbonisation plan, with projects ranging from installation, upgrading, and optimisation of M&E infrastructure, building-level monitoring and optimisations for energy-intensive buildings, and studies and pilots to determine energy savings of potential interventions.	Quarterly
	Zero Waste Working Group	Deliver resource wastage reduction in key waste streams, including food catering and disposable takeaways. Foster resource conscious behaviours in the campus community, by reinforcing sorting and reuse norms.	Quarterly
	Cool NUS Meeting	Apply research insights to campus planning and development by using data to regularly monitor the campus' outdoor thermal comfort and translating them into practical implementation on campus.	At least twice a year

Strengthening Robustness and Transparency of Environmental Disclosures

As sustainability governance at NUS matures and accountability becomes more distributed, the University is also strengthening the internal controls that underpin robust and transparent sustainability reporting.

Although the University is not required to undertake Climate Related Disclosures (CRDs) under ACRA's Mandatory Climate Reporting and Assurance Roadmap for Singapore as a Company Limited by Guarantee, it voluntarily discloses its environmental performance and data annually. In 2025, the University took steps to strengthen the process, documentation and internal control mechanisms of the Environmental Disclosures 2024 through a review by internal audit. The review assessed whether adequate processes were in place to support the accuracy, reliability, and completeness of NUS' reported environmental data and disclosures, as well as their alignment with established sustainability reporting standards. No significant lapses affecting the integrity of the published disclosures were flagged.

Building on this, the University has undertaken an external limited assurance for selected key reporting metrics, particularly carbon-related indicators, for 2025 Environmental Disclosures. This marks a further step in enhancing the robustness and external validation of its environmental disclosures.

In parallel, UCI is collaborating with the NUS Centre for Governance and Sustainability on a climate reporting benchmarking study, anticipated to be the first of its kind in Singapore, to set the standard for university-level climate reporting. Findings will be ready in 2026.

▲ The Environmental Disclosures provide quantitative updates on the campus environmental performance, complementing the NUS Sustainability Report that provides an overarching narrative of the range and depth of the University's sustainability efforts.

Building Capability for the Next Phase

▲ Building Sustainability Literacy: UCI engaged Office of Finance (OFN) staff on zero waste practices at the OFN Care Day on Sustainability, 4 March 2026.

As the University moves towards a more federated model of accountability, faculties, schools and administrative units will assume greater shared responsibility for sustainability implementation. This makes sustainability literacy and competency-building critical enablers of the University's sustainability journey. To support this shift, a Sustainability Literacy Programme for administrative staff is being developed by NUS Sustainability Academy with contributions from UCI. Staff are also regularly engaged on campus sustainability through orientation talks by Office of Human Resources and staff engagement events such as the OFN Care Day on Sustainability.

Beyond building staff capacity, student engagement plays a vital role in advancing the University's sustainability agenda. Student representatives contributed through key platforms including the campus masterplan review, the USCAC, and the Zero Waste Working Group.

Mr Tan Kian Woo
Senior Vice President and Chief Financial Officer

"At the Office of Finance, we're translating abstract green goals into seamless daily habits through our collaboration with the Sustainability Strategy Unit. By establishing intuitive recycling systems and empowering a staff champion to guide colleagues, we're building the literacy and confidence needed for intuitive sustainable choices. This shared ownership model strengthens our collective capability to advance NUS' sustainability ambitions."

Important Details

Annex

▲ Sharing of the campus sustainability performance during the Campus Sustainability Get-Together with stakeholders across the University.

Our Environmental Data[1]

	2019	2022	2023	2024	2025
Defend Against Climate Change					
No. of Trees Planted (Cumulative)	5,915	35,100	47,552	55,221	68,122
Decarbonise					
Total GHG Emissions (k tCO_2e)	**351**	**329**	**327**	**336**	**382**
(i) Scope 1	**2.8**	**2.2**	**1.4**	**2.4**	**4.1**
Fuel Combustion[2]	0.3	0.3	0.3	0.3	0.3
Fugitive Emissions from Refrigerants	2.5	1.9	1.1	2.1[3]	3.7
(ii) Scope 2	**110**	**113**	**121**	**115**	**116**
Scope 2 Gross Carbon Emissions Intensity ($kgCO_2e/m^2$)	79	79	82	79	78
(iii) Scope 3	**237**	**213**	**205**	**218**	**262**
Category 1 – Purchased goods and services[4]	59	51	46	46	96
Category 2 – Capital goods[4]	86	63	57	68	67
Category 3 – Fuel and energy related activities[2]	21	31	32	30	31
Category 5 – Waste generated in operations[5]	7	5	6	8	7
Category 6 – Business travel[6]	34	32	34	36	30
Category 7 – Employee commuting[7]	7	7	7	7	8
Category 13 – Downstream leased assets[2]	24	23	23	23	25
Total Electricity Consumption (GWh)	**271**	**280**	**290**	**283**	**289**
(i) Grid Electricity (GWh)	270	279	290	276	278
(ii) Campus Solar Energy (GWh)	0.6	0.5	0.6	7	12[8]
Energy Usage Intensity (EUI) (kWh/m^2)	**195**	**195**	**198**	**193**	**196**
1st Building Cluster Targeting Net Zero Energy – SDE4, SDE1, SDE3					
SDE4 – Awarded Green Mark (GM) 2021 in Operation Platinum Positive Energy in 2022					
Solar Energy Generated (GWh)	0.6	0.5	0.4	0.5	0.6
Electricity Consumption (GWh)	0.5	0.4	0.4	0.4	0.4
EUI (kWh/m^2)	55	44	44	43	44
SDE1 – Awarded Green Mark (GM) 2021 in Operation Platinum Zero Energy in 2026					
Solar Energy Generated (GWh)	–	–	–	0.2	0.5
Electricity Consumption (GWh)	–	0.4	0.4	0.4	0.5
EUI (kWh/m^2)	–	43	47	50	55
SDE3 – Awarded Green Mark (GM) 2021 in Operation Platinum Super Low Energy in 2024					
Solar Energy Generated (GWh)	–	–	–	–	0.1
Electricity Consumption (GWh)	–	0.08	0.6	0.6	0.6
EUI (kWh/m^2)	--	–	38	42	40

		2019	2022	2023	2024	2025
Other Key Buildings						
Ventus – Awarded Green Mark (GM) 2021 in Operation Platinum Super Low Energy in 2024						
Solar Energy Generated (GWh)		–	–	–	–	0.2
Electricity Consumption (GWh)		0.4	0.3	0.3	0.3	0.3
EUI (kWh/m^2)		78	60	54	49	54
Yusof Ishak House – Awarded Green Mark (GM) 2021 in Operation Platinum Super Low Energy (Provisional) in 2026						
Solar Energy Generated (GWh)		–	–	–	–	0.3
Electricity Consumption (GWh)		–	2.2	Under renovation		1.3
EUI (kWh/m^2)		–	175			103
Top Energy-Intensive Buildings (Labs)						
MD6	Electricity Consumption (GWh)	18.8	19.4[9]	17.4[9]	17.7	17.0
	EUI (kWh/m^2)	462	476[9]	428[9]	434	418
CeLS	Electricity Consumption (GWh)	–	9.8	8.5	7.6	6.9
	EUI (kWh/m^2)	–	487	424	379	344
E3A	Electricity Consumption (GWh)	–	8.8	9.3	7.9	8.1
	EUI (kWh/m^2)	–	723	769	652	670
E6	Electricity Consumption (GWh)	–	6.7	6.9	6.4	5.8
	EUI (kWh/m^2)	–	552	565	527	479
E8	Electricity Consumption (GWh)	–	6.1	6.1	6.6	6.9
	EUI (kWh/m^2)	–	385	388	417	436
MD1	Electricity Consumption (GWh)	–	8.7	8.0	8.1	9.1
	EUI (kWh/m^2)	–	225	224	226	255
MD2	Electricity Consumption (GWh)	–	6.8	7.1	7.3	7.0
	EUI (kWh/m^2)	–	688	721	742	708
S1A	Electricity Consumption (GWh)	–	5.8	6.6	7.0	6.5
	EUI (kWh/m^2)	–	551	631	660	613
S9	Electricity Consumption (GWh)	–	16.9	18.1	20	Meters under maintainance
	EUI (kWh/m^2)	–	456	488	538	
T-Lab	Electricity Consumption (GWh)	–	11.1	11.1	11.1	11.6
	EUI (kWh/m^2)	–	454	454	456	478

[1] Refer to our Environmental Disclosures 2025 – Technical Notes and Methodologies for more details on the calculation methodologies, definitions, assumptions, and exclusions.

	2019	2022	2023	2024	2025
▸ Dematerialise[8]					
Total Waste Generated (tonnes)	**5,921**	**5,031**	**5,368**	**6,254**	**5,712**
(i) Incinerated / Waste directed to disposal by disposal operation	**4,416**	**3,426**	**3,939**	**5,069**	**4,511**
(ii) Recycled / Waste diverted from disposal by recycling operation	**1,505**	**1,605**	**1,429**	**1,185**	**1,201**
Paper, Plastic, Metal, Glass	81	135	138	152	140
Food	209	367	110	20	50
Horticulture	1,130	1,043	1,105	953	951
Electronic Waste (E-waste)	84	54	65	52	56
Textile	–	6	12	8	5
Recycling Rate	**25%**	**32%**	**27%**	**19%**	**21%**
Daily Waste Disposed per Capita (kg/day/capita)	**0.22**	**0.16**	**0.18**	**0.22**	**0.20**

[2] Restated town gas figures (Scope 1, Scope 3 Category 3 and Scope 3 Category 13) following a correction to the calculation formula.

[3] Restated 2024 refrigerant emissions to reflect the correct reporting period for some refrigerant top-ups.

[4] Restated Scope 3 Categories 1 and 2 figures to include upstream transportation and distribution. From 2025 onwards, emissions are calculated using spend data grouped into 12 main procurement categories.

[5] Restated Scope 3 Category 5 figures to apply Singapore Emission Factors Registry (SEFR) incineration emission factors consistently across all years.

[6] Restated Scope 3 Category 6 figures to apply Department for Energy Security and Net Zero (DESNZ) emission factors by international haul type. Student air travel methodology was also updated to include outbound journeys only.

[7] Restated Scope 3 Category 7 figures to apply SEFR emission factors for public bus, MRT and ICE vehicles consistently across all years.

[8] 84% of campus solar energy generated (4.0k tCO2e) was used to generate Renewable Energy Certificates for additional revenue. It is not counted towards emission reduction efforts.

[9] Restated MD6 electricity consumption following a correction to the electricity metering calculations.

▸ Dematerialise

OUR RECYCLABLES

Recyclable Type	Source of Recyclables and How They Are Currently Recycled
Electronic Waste	IT equipment from faculties and electronic waste contributed via the bins located in Central Library Forum, outside LT27, E6 and UTown are collected by Alba E-Waste Smart Recycling Pte Ltd. These items are transported to Alba's Material Recovery Facility for further sorting and subsequent export to neighbouring countries for recycling.
Food	Food waste generated by stallholders during food preparation and leftovers are transported through our hub-and-spoke model to composters located in Techno Edge, Stephen Riady Centre and Terrace that produce compost used in campus landscaping works, and a WasteMaster dehydrator system by Life Lab Resource Pte Ltd in MD1 that produces a substrate for potential aquaculture feed testing or biofuels.
Glass	Accumulated glass (e.g. drink bottles) from F&B outlets and residences are collected by P&R Resource Management Pte Ltd and transported to their facility to be crushed and packed in containers for subsequent export to Malaysia for recycling.
Horticulture	Plant matter collected from regular tree pruning works are transported by our landscaping contractor to a biomass waste-to-energy plants by 800 Super Holdings Ltd and Kim Hock Corporation Ltd where it is used to generate steam for energy production. Approximately 10% of our horticulture waste which comes from fallen leaves and minor pruning works are transported to a local nursery to be turned into mulch.
Paper Metal	These items are collected from Recycle Right bins across our campus by Asia Recycling Resources Pte Ltd and transported to their material recovery facility, where they are baled and then exported to neighbouring countries for recycling.
Plastic (HDPE2, PP5)	These items are collected from selected bin centres with lab packaging materials and transported to Magorium Ptd Ltd's processing facility, where they are processed into bitumen used in road paving.
Plastic (PET1)	PET-1 bottles collected from Recycle Right bins across our campus by Cora Environment Pte Ltd are transported to their material recovery facility, where they are baled and then exported to Hiroyuki Industries (M) Sdn Bhd where they are processed into food grade recycled PET-1 resins.
Textiles	Apparel and other textiles like pillows are collected by Cloop who will pack them into bags and export them to Malaysia for further sorting and recirculation.

	2019	2022	2023	2024	2025
Other Environmental Data					
Gross Floor Area (million m^2)	1.39	1.43	1.47	1.47	1.48
Campus Fleet Vehicles Electrified (%)	0%	17%	25%	25%	41%
Water Consumption (million m^3)	2.02	1.78	1.89	1.76	1.75
Water Efficiency Index (WEI) (m^3/m^2)	1.41	1.24	1.29	1.20	1.19

Information on Baseline Years

For our emissions and electricity targets, our baseline year is 2019 – the most recent year before the COVID-19 pandemic.

For our waste targets, 2021 was selected as the baseline year as we have bin centre-level waste data from 2021, arising from the implementation of the smart waste and recycling collection system. 2019 and 2020 data were previously derived from the following: waste weight estimations based on number of bulk bins, actual waste weight from mobile compactors and campus-level aggregated weight of recyclables collected by the previous vendor. We are continuously enhancing our waste data collection approach to ensure reliability, such as using optical character recognition technology to read data from photos taken of the load cell readings.

Emission Factors

For Scope 2 indirect emissions, the equivalent CO_2 emissions for electricity used are calculated based on the updated average operating margin grid emission factor from the Energy Market Authority for the relevant time period – for 2025, the value used was 0.402 $kgCO_2/kWh$.

Scope 1 direct emissions and Scope 3 indirect emissions are calculated using: IPCC (the United Nations Intergovernmental Panel on Climate Change): AR6 Synthesis Report, Guidelines for National Greenhouse Gas Inventories, Department for Energy Security and Net Zero (DESNZ) Greenhouse Gas reporting: conversion factors, EPA (U.S. Environmental Protection Agency): emission factors hub, the National Environment Agency: Greenhouse Gas (GHG) Emissions Measurement and Reporting Guidelines, Waste Statistics and Overall Recycling, the World Bank: Electric power transmission and distribution losses, and Singapore's Fifth Biennial Update Report. Relevant emission factors were sourced from: Linde plc gases and equipment information, Monetary Authority of Singapore exchange rates, US Bureau of Statistics CPI inflation calculator. For spend based category data, Monetary Authority of Singapore, Supply Chain GHG Emission Factors for US Commodities and Industries from the EPA were applied by economic sectors to calculate the Scope 3 indirect emissions.

Description of Inventory Boundary

GHG emissions are derived in accordance with the requirements of the "GHG Protocol Corporate Accounting and Reporting Standard" (GHG Protocol). GHG Protocol's 'Operational Control' approach was used to set NUS' organisational boundary.

This covers NUS' three main campuses – Kent Ridge (including University Town, Bukit Timah and Outram (Duke-NUS Medical School) and the Data Centre at NUS High School & Tropical Marine Science Institute at St John's Island; and excludes the following: A*STAR and other non-NUS research institutes and centres located on any of the above-mentioned premises (e.g. Brenner Centre for Molecular Medicine, Temasek Life-science Lab, Defence Science Organization, CREATE, Singapore Wind Tunnel Facility, TCOMS, Institute of South Asian Studies, Middle East Institute, Energy Studies Institute), Kent Ridge Guild House, Residential Tenants (Kent Vale Residences, Pandan Valley, College Green), NSCC i4.0 Data Centre; and retail and dining tenants (e.g. canteens).

Information on Emissions Metrics

NUS has reported our GHG emissions for Scope 1, Scope 2 and relevant Scope 3 categories. Specifically, Scope 3 Categories 4, 8, 9, 10, 11, 12 and 14 are not applicable as NUS does not produce or manufacture any products or operate any franchises. Scope 3 Category 15 is currently not reported due to data unavailability. NUS adopts a responsible investment strategy with a focus on ensuring that its investments generate income to support our activities while closely aligning to principles of environmental sustainability and social responsibility.

Glossary of Our Indicators

Defend Against Climate Change

NO. OF TREES PLANTED (CUMULATIVE)	Number of new trees planted on campus since November 2018. Beyond working with our landscape contractors, we actively encourage and engage the community in campus tree planting activities through initiatives such as Plant-it-Forward. Among the most active community groups contributing to these efforts is NUS Toddycats. Learn more about the heritage trees on our campus here.

Decarbonise

SCOPE 1 & 2 ABSOLUTE EMISSIONS (k tCO_2e)[10]	Greenhouse Gas (GHG) emissions[11] from activities we have control over - Scope 1 emissions are from our usage of fuel & refrigerants in chiller plants; Scope 2 emissions are from the production of grid electricity that we use.
ELECTRICITY CONSUMPTION (GWh)[12]	Total amount of electricity that we use from the grid and renewables.
ENERGY USAGE INTENSITY (EUI) (kWh/m^2)	Total amount of electricity that we use from the grid and renewables per metre square. Tracking per metre square allows us to monitor our consumption as the campus grows.
SCOPE 3 ABSOLUTE EMISSIONS ($ktCO_2e$)	Indirect GHG emissions from sources not owned or directly controlled by NUS but related to NUS activities including the goods and services we purchase, the waste we generate, how we commute & travel, and the grid electricity that our tenants use.

Dematerialise

RECYCLING RATE	Amount of waste sent for recycling, instead of being sent to incineration plants, compared to total amount of waste generated on campus.
DAILY WASTE DISPOSED PER CAPITA	Amount of waste a person throws into the rubbish bin every day on campus that is sent for incineration. Tracking per capita allows us to monitor the waste disposed as our campus population grows.

[10] k tCO_2e refers to the unit of measurement that accounts for all greenhouse gas (GHG) emissions. As different GHGs have different global warming potentials (i.e. heat absorbed in the atmosphere), this reflects the number of kilotons of carbon dioxide (CO_2) emissions with the same global warming potential as one kilo-ton of another GHG, where 1 kilo-ton (kt) = 1,000,000 kilograms (kg), This allows us to evaluate all emissions in a single metric.

[11] Greenhouse gases (GHG) are gases that trap heat from the sun in the Earth's atmosphere, leading to an overall warming of the Earth. The three key GHGs accounted for in NUS are carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).

[12] GWh refers to a unit of measurement for electrical energy. Mathematically, it refers to the amount of power (gigawatts or GW) that appliances consume over a time period (hour or h), where one gigawatt (GW) = 1,000,000 kilowatt (kW) = 1,000,000,000 watts (W).

GRI Content Index

Statement of use

National University of Singapore (NUS) has reported with reference to the GRI Standards for the period 1 April 2025 to 31 March 2026.

GRI 1 used

GRI 1: Foundation 2021

GRI Standards	Disclosure Number	Disclosure Title	Page
General Disclosures			
GRI 2 (2021): General Disclosures	2-1	Organisational details	Annual Report Page 45
	2-2	Entities included in the organisation's sustainability reporting	2
	2-3	Reporting period, frequency and contact point	2
	2-4	Restatements of information	52
	2-4	External assurance	2
	2-9	Governance structure and composition	42-45
	2-29	Approach to stakeholder engagement	42-47
Defend Against Climate Change			
GRI 3 (2021): Material Topics	3-3	Management of material topics	10-11
Decarbonise			
GRI 3 (2021): Material Topics	3-3	Management of material topics	20-23
GRI 102 (2025): Climate Change	102-4	GHG reduction targets & progress	22, 24-25
	102-5	Scope 1 GHG emissions	22, 50
	102-6	Scope 2 GHG emissions	22, 50
	102-7	Scope 3 GHG emissions	50
	102-8	GHG emissions intensity	50
GRI 103 (2025): Energy	103-1	Energy policies and commitments	22
	103-2	Energy consumption & self-generation within the organization	50-51
	103-3	Energy intensity	22, 50-51
	103-4	Reduction of energy consumption	22-29
Dematerialise			
GRI 3 (2021): Material Topics	3-3	Management of material topics	32, 34-35
GRI 306 (2020): Waste	306-1	Waste generation and significant waste-related impacts	33
	306-2	Management of significant waste-related impacts	34-39
	306-3	Waste generated	33, 52
	306-4	Waste directed to disposal	33, 52
	306-5	Waste directed from disposal	33, 36-38, 52-53
Water Consumption			
GRI 303 (2018): Water	303-5	Water consumption	53

Independent Limited Assurance Statement

To the management of the National University of Singapore

Ere-S Pte Ltd (Ere-S) was engaged by the National University of Singapore ("NUS") to undertake an independent limited assurance engagement on the selected environmental disclosures listed below and reported on pages 50 to 52 of the NUS Environmental Disclosures 2025. Some of these disclosures are also presented on pages 30, 31 and 34 of the NUS Sustainability Report 2025. The engagement was conducted between January and July 2026.

In addition to the assurance engagement, Ere-S conducted an independent review of the calculation methodologies used for four of NUS's decarbonisation projects.

Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that, in all material respects, the selected environmental disclosures were not prepared in accordance with the criteria set out in this statement.

Based on the independent review performed, Ere-S identified no issues with the calculation methodologies and assumptions used by NUS to evaluate the reviewed decarbonisation projects.

Scope

The assurance engagement covered the following environmental disclosures for the 2025 reporting period (1 April 2025 to 31 March 2026), as well as the underlying data collection and calculation procedures supporting those disclosures.

Disclosures	Assured figures
Scope 1 GHG Emissions	**4.1 $ktCO_2e$**
Fuel Combustion	0.3 $ktCO_2e$
Fugitive Emissions	3.7 $ktCO_2e$
Scope 2 GHG Emissions	**116 $ktCO_2e$**
Scope 2 Gross Carbon Emissions Intensity	78 $kgCO_2e/m^2$
Scope 3	
Category 6: Business travel	30 $ktCO_2e$
Category 13: Downstream leased assets	25 $ktCO_2e$
Total Electricity Consumption	**289 GWh**
Grid Electricity	278 GWh
Campus Solar Energy	12 GWh
Energy Usage Intensity (EUI)	196 kWh/m^2
SDE4 – Awarded Green Mark	**OPPE 2022**
Solar Energy Generated	0.6 GWh
Electricity Consumption	0.4 GWh
EUI	44 kWh/m^2
SDE1 – Awarded Green Mark	**OPZE 2026**
Solar Energy Generated	0.5 GWh
Electricity Consumption	0.5 GWh
EUI	55 kWh/m^2
SDE3 – Awarded Green Mark	**OPSLE 2024**
Solar Energy Generated	0.1 GWh
Electricity Consumption	0.6 GWh
EUI	40 kWh/m^2
Ventus – Awarded Green Mark	**OPSLE 2024**
Solar Energy Generated	0.2 GWh
Electricity Consumption	0.3 GWh
EUI	54 kWh/m^2
Yusof Ishak House – Awarded Green Mark (Provisional)	**OPSLE 2026**
Solar Energy Generated	0.3 GWh
Electricity Consumption	1.3 GWh
EUI	103 kWh/m^2
MD6 Electricity Consumption	**17.0 GWh**
EUI	418 kWh/m^2
CeLS Electricity Consumption	**6.9 GWh**
EUI	344 kWh/m^2
E3A Electricity Consumption	**8.1 GWh**
EUI	670 kWh/m^2
E6 Electricity Consumption	**5.8 GWh**
EUI	479 kWh/m^2
E8 Electricity Consumption	**6.9 GWh**
EUI	436 kWh/m^2
MD1 Electricity Consumption	**9.1 GWh**
EUI	255 kWh/m^2
MD2 Electricity Consumption	**7.0 GWh**
EUI	708 kWh/m^2
S1A Electricity Consumption	**6.5 GWh**
EUI	613 kWh/m^2
T-Lab Electricity Consumption	**11.6 GWh**
EUI	478 kWh/m^2

Total Waste Generated	**5,712 tonnes**
Incinerated Waste	4,511 tonnes
Recycled Waste	1,201 tonnes
Paper, Plastic, Metal, Glass	140 tonnes
Food	50 tonnes
Horticulture	951 tonnes
Electronic Waste	56 tonnes
Textile	5 tonnes
Recycling Rate	21%
Daily Waste Disposed per Capita	0.2 kg/day/capita

The independent review covered the calculation methodologies and assumptions used by NUS to quantify the estimated impacts of the following decarbonisation projects described on pages 24 and 25 of the NUS Environmental Disclosures 2025.

- MD6 manual ACH optimisation
- Campus-wide ULT freezer changeout
- Campus-wide Solar PV
- LED replacement: MD6, University Hall, BIZ1, Sports Lighting

Exclusions

Scope 3 categories other than Category 6 and Category 13, although reported by NUS alongside the selected environmental disclosures, were excluded from the assurance scope following NUS's decision to prioritise Category 6 and Category 13 based on their relative materiality.

Except for the assessment of relevant data quality control mechanisms implemented by NUS, Ere-S did not verify management procedures, or the physical performance and operational status of equipment or buildings. The engagement also excluded historical disclosures and data prior to 2025, as well as other information not directly related to the assessed disclosures.

Standards and criteria

The limited assurance engagement was conducted in accordance with the International Standard on Sustainability Assurance (ISSA 5000) and the International Standard on Assurance Engagements on Greenhouse Gas Statements (ISAE 3410).

The assured performance figures and data sources, including NUS's GHG emissions inventories and the associated calculation and classification methodologies, were evaluated against the criteria set out in the following standards:

- The GRI reporting principles of Accuracy, Completeness, and Verifiability set out in GRI 1: Foundation 2021
- The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, including the associated technical guidance for the calculation and classification of Scope 1, Scope 2, and Scope 3 emissions, where applicable.

Limitations

A limited assurance engagement involves less extensive procedures than a reasonable assurance engagement and consequently may leave minor misstatements undetected. In addition, sustainability-related evidence is often more persuasive than conclusive, resulting in assurance findings that are inherently more reliant on the professional judgement of the assurance practitioner.

Assurance methodology

The assurance procedures and principles applied for this engagement were compliant with ISSA 5000 and were based on Ere-S's assurance methodology, which included the following activities:

1. Identifying and classifying the relevant disclosures, data sets and evidence requirements for the assurance process.
2. Conducting data assessment through a combination of desktop-based verification procedures and virtual interviews with NUS's data owners, including:
   - enquiries regarding the reported disclosures, underlying measurement systems, data collection processes and quality control mechanisms;
   - review of data sources, calculation methodologies, conversion factors, estimates and key assumptions supporting the reported figures; and
   - sampling of quantitative data and reconciliation of reported figures to underlying source documentation, including metering reports, extracts from data management systems, suppliers' invoices and other supporting evidence.
3. Assessing the collected information against the assurance criteria and providing recommendations for the correction or improvement of data collection and reporting processes where appropriate.
4. Validating the final disclosures included in the NUS Environmental Disclosures 2025 and confirming that identified issues and recommendations had been appropriately addressed.

Responsibility and independence

This statement represents the independent opinion of Ere-S, whose responsibility was to perform the assurance engagement, express conclusions in accordance with the agreed scope, and prepare this assurance statement solely for the management of NUS and for no other purpose. The management of NUS was responsible for selecting and applying the methods used to collect, compile, and publish the environmental disclosures. Ere-S was not involved in the development of the data collection or calculation processes, nor was it engaged by NUS to provide other non-assurance services. Ere-S is independent of NUS and holds no financial interest in NUS's business operations.

Findings and observations

Overall, the assessed disclosures provided a good to high level of confidence regarding their accuracy and completeness. Based on the sampling procedures performed, the reported information, environmental performance data, and associated measurement and calculation methodologies were generally traceable to the underlying source documentation. Our work did not identify any material omissions, inconsistencies, or errors in the assured environmental figures presented in the NUS Environmental Disclosures 2025.

Based on the independent review of the four decarbonisation projects, Ere-S concluded that the final calculation methodologies and assumptions used by NUS to quantify their estimated impacts do not contain any material issues.

Singapore, 29 July 2026

Ere-S

Reg no. 201003736W

Jean-Pierre Dalla Palma
Lead Certified Sustainability Assurance Practitioner

Ere-S Pte Ltd is a Singapore-based consulting company specialising in business sustainability. It provides reporting, verification, and assurance services. Our assurance team is composed of assurance practitioners with expertise in corporate sustainability. Each member is required to follow Ere-S' assurance code of conduct, which can be found at www.ere-s.com/assurance-code-of-conduct, including its ethical and independence requirements. Ere-S is not responsible for any actions taken by other parties resulting from the findings presented in this assurance statement.

▲ Set to become the first Net Zero Energy office building on campus in 2026, Ventus will have additional sustainability features of dynamic ventilation to further cut energy consumption and an expanded rooftop solar PV capacity.

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