



UNSW
SYDNEY

Environmental Sustainability Report 2025 in numbers

Acknowledgement of Country

UNSW acknowledges the Biripai, Dharug, Gadigal, Gumbaynggirr, Ngunnawal and Wiradjuri peoples, who are the Traditional Custodians of, and whose communities remain connected to, the unceded territories upon which the University's main campuses are located. We pay our respects to Aboriginal and Torres Strait Islander Elders past and present for their custodianship of Country, and celebrate the cultural knowledges, stories, songlines, ancestors and dreamings of Aboriginal and Torres Strait Islander people, the First Peoples of Australia.



Environmental sustainability at UNSW

UNSW Sydney is a world-leading university, known for driving progress that benefits everyone. Since our foundation in 1949, our collective aim has been to have a positive global impact, improving and transforming lives through excellence in research and outstanding education.

Many of our students and staff are actively engaged in environmental and social issues. We recognise that we are uniquely positioned to contribute to solving global environmental challenges through teaching, research, thought leadership and demonstrating leading practices on our campuses.

UNSW's environmental sustainability program is led and coordinated by the Environmental Sustainability unit within Estate Management, in collaboration with students and staff across academic faculties and divisions.

UNSW's commitment to environmental sustainability is reflected in the UNSW Strategy: Progress for All, released in February 2025, in particular:

- > *Pillar 6: Accelerate the transition to a sustainable society and planet*
- > *Be an exemplar climate-resilient, nature positive, net zero emissions university that empowers our community*

How we measure progress

Our Environmental Sustainability Plan 2022-24¹ addresses our key operational activities and environmental issues. Our approach in each area is structured by:

- > Targets: specific, measurable outcomes that we measure our progress against.
- > Key initiatives: the main strategies that enable the realisation of our targets.

While UNSW develops new targets through our upcoming Climate Transition Plan, the Environmental Sustainability Plan 2022-24 remains our go-to document for sustainability ambition and key initiatives. Progress against the 13 targets in this document is summarised in the next page, using the following categorisation:

Status	Symbol	Description	Count
On track		Targeted outcome is on track or maintained for achievement but target period is beyond the reporting period	1
Achieved / Maintained		Targeted outcome was achieved by the end of the reporting period	7
Not achieved / Not maintained		Targeted outcome was not achieved or not maintained by the end of the reporting period	5

Additional data is shared following the summary table for transparency on our environmental performance.

¹ https://www.sustainability.unsw.edu.au/sites/default/files/documents/UNSW_Environmental-Sustainability-Plan-2022_v2.1.pdf

Target status summary

Focus Area	Target	Unit	Performance								Status	Comment
			2018	2019	2020	2021	2022	2023	2024	2025		
Climate action	Maintain net zero operational (scope 1 and 2) emissions	Tonnes of carbon dioxide equivalent (tCO ₂ e)	82,443	86,368	0	0	0	0	0	0	Maintained	Achieved through a mix of Large-scale Generation Certificates (LGCs) and voluntary carbon credits.
	Expand onsite solar PV capacity to 1.5MWp	Megawatts potential (MWp)	0.79	1.16	1.16	1.23	1.37	1.37	1.48 ²	1.48	Maintained	–
	Reduce total (scope 1, 2 and 3) emissions by 30% by 2025, 50% by 2030, net zero by 2050 from baseline year 2018	Tonnes of carbon dioxide equivalent (tCO ₂ e)	317,278	340,557	150,445	171,432	194,814	229,218	215,517	214,794	Maintained	Scope 1 and Scope 2 emissions are based on actual CY2025 activity data. Scope 3 emissions for CY2025 are estimated using CY2024 data as a proxy. Carbon credits do not contribute to UNSW meeting its total scope 1, 2 and 3 emission reduction targets.
	Divest investments in fossil companies	% of eligible investments in fossil fuel companies	–	–	–	–	–	–	–	–	On track	–
Living campuses	New build and refurbishment projects achieve our minimum sustainability requirements	All relevant projects meeting all requirements Y/N	–	–	–	–	–	–	–	Y	Achieved	Capital Projects Sustainability Framework approved and implemented
	Kensington campus achieves a net gain in biodiversity value	Nature value rating (0-50)	–	–	–	–	25	–	27	27	Maintained	–
	Increase student and staff knowledge and awareness of environmental sustainability issues	Average rating from 1 (low) to 5 (high)	–	–	–	3.03	–	–	3.09	–	Maintained	This metric is measured triennially
	At least 85% of students and staff travel to campus by sustainable modes	Travel by modes other than private car (%)	–	85%	–	–	84%	–	84%	–	Not Achieved	This metric is measured biennially
Resource efficiency	Reduce energy intensity by 5% from baseline year 2018	Kilowatt hours per square metre GFA per year (kWh/m ² /year)	195	210	189	179	196	201	210	194	Not achieved	Increased occupation and activity on campus
	Reduce water intensity by 5% from baseline year 2018	Kilolitres per square metre GFA per year (kl/m ² /year)	0.93	0.97	0.62	0.54	0.78	0.75	0.63	0.89	Not maintained	Increased occupation and activity on campus
	At least 85% of general waste is diverted from landfill	% of general waste by weight diverted from landfill	94%	49%	65%	83%	82%	81%	82%	87%	Achieved	Rolled out food waste collection in offices and student dining hall
	Reduce general waste by 20%	Tonnes (t) of general waste per year	2,852	2,838	1,409	1,609	1,992	2,079	2,315	2,464	Not achieved	Increased occupation and activity on campus
	At least 80% of retailers achieve Plastic Free Dining Gold Award status	% of food and drink retailers receiving Plastic Free Dining Gold Award	0%	–	–	–	26%	54%	62%	–	Not achieved	Program under review due to change of scope

² On-site solar capacity has been corrected for the 2024 period

Environmental Data

Energy and water efficiency

(Kensington, Paddington and Randwick campuses)

Energy	Unit	2018	2019	2020	2021	2022	2023	2024	2025
Consumed electricity	Kilowatt hour (kWh)	84,954,523	92,588,228	85,280,032	81,085,776	85,736,828	90,446,128	94,720,229	95,608,120
Electricity from onsite solar		996,974	1,152,340	1,079,664	1,057,563	1,065,861	1,227,595	1,261,873	1,495,646
Gas		33,841,626	37,653,273	34,102,707	33,434,650	37,876,184	34,839,205	36,756,884	33,219,516

Water	Unit	2018	2019	2020	2021	2022	2023	2024	2025
Potable water	Kilolitre (kl)	289,103	285,834	153,380	138,593	210,094	227,547	187,861	267,929
Bore water		272,247	310,899	231,851	201,756	278,539	236,237	204,941	313,323
Total water		561,350	596,733	385,230	340,349	488,633	463,784	392,802	581,252
Bore water as a % of total	%	48%	52%	60%	59%	57%	51%	52%	54%

General waste breakdown

(Kensington, Paddington and Randwick campuses – excluding chemical, biological and e-waste streams)

General waste	Unit	2018	2019	2020	2021	2022	2023	2024	2025
Paper/cardboard	Tonne	1,125	658	380	538	719	755	927	1,069
Mixed metals	Tonne	120	29	36	75	95	179	94	80
Drink containers	Tonne	84	122	188	151	88	0	0	0
Mixed plastics	Tonne	0	0	24	41	56	60	52	51
Food and organics	Tonne	278	80	0	0	0	0	0	0
Food waste	Tonne	228	257	51	59	48	57	23	115
Residual	Tonne	1,017	1,692	730	745	986	1,213	1,218	1,150
Total		2,852	2,838	1,409	1,609	1,992	2,264	2,315	2,464

Destination									
Recycling	Tonne	1,835	1,146	679	864	1,006	994	1,096	1,310
Processed engineered fuel (energy recovery)	Tonne	858	244	241	477	633	820	794	841
Landfill	Tonne	159	1,447	490	268	353	450	425	313
General waste recycling rate	%	64%	40%	48%	54%	50%	44%	47%	53%
General waste landfill diversion rate	%	94%	49%	65%	83%	82%	80%	82%	87%

Paper and cardboard: Segregated paper, confidential paper and paper recovered from general waste at Material Recovery Facility (MRF).

Mixed metals: Reported as recovered from general waste at MRF.

Drink containers: Collected through designated bins on Kensington campus.

Mixed plastics: Reported as recovered from general waste at MRF.

Food and organics: Reported as recovered from general waste at MRF.

Food waste: Segregated food waste collected from retailers and colleges.

Residual waste: Contaminated paper, plastic, food packaging, food waste and other non-recyclable waste destined for energy recovery and landfill

Environmental Data

Scope 1 & 2 Emissions

Emissions scope / category	Emissions (tCO ₂ e)							
	2018	2019	2020	2021	2022	2023	2024	2025 ³
Scope 1: direct emissions	8,151	8,965	8,194	7,571	8,638	7,680	9,217	8,213
Natural gas and other fuels	7,162	8,000	7,195	6,729	7,777	7,238	7,752	7,344
Refrigerant and laboratory gases	631	608	642	467	580	260	1,300	761
Livestock emissions	357	357	357	374	281	182	166	108
Scope 2: indirect (electricity) emissions	74,398	77,509	70,810	64,220	64,105	62,857	64,158	65,192
Electricity (location-based method) ⁴	74,398	77,509	70,810	64,220	64,105	62,857	64,158	65,192
Total emissions (excluding offsets)	82,549	86,474	79,004	71,791	72,743	70,537	73,375	73,404
Scope 1 voluntary surrenders (ACCU, VER, VCU)	0	0	8,194	7,571	8,638	7,680	9,217	8,213
Net scope 1 emissions (including offsets)	8,151	8,965	0	0	0	0	0	0
Scope 2 voluntary surrenders (LGC) ⁵	0	0	70,810	64,220	64,105	62,857	64,158	64,911
Electricity (market-based method)	74,398	77,509	0	0	0	0	0	281
Scope 2 voluntary surrenders (ACCU, VER, VCU)	0	0	0	0	0	0	0	281
Net scope 2 emissions (market-based method, including offsets)	74,398	77,509	0	0	0	0	0	0
Net emissions (including offsets)	82,549	86,474	0	0	0	0	0	0

Scope 3 Emissions

Emissions scope / category	Emissions (tCO ₂ e)							
	2018	2019	2020	2021	2022	2023	2024	2025
Scope 3: indirect (value chain) emissions	234,729	254,084	142,251	163,862	186,176	221,531	206,300	239,203
Category 1: Purchased goods and services	82,599	118,724	61,609	70,861	85,176	93,295	103,918	73,159
Category 2: Capital goods	60,024	40,905	21,414	24,355	26,540	29,685	36,842	42,479
Category 3: Upstream energy-related emissions	9,292	9,753	8,926	6,779	6,570	6,542	5,999	5,000
Category 5: Waste generated in operations	899	2,348	910	707	951	1,052	1,087	1,278
Category 6: Business travel	32,387	34,295	1,672	596	15,002	36,940	26,758	31,741 ⁷
Category 7: Employee commuting	11,275	9,861	5,712	4,399	4,929	5,153	5,072	45,709
Category 13: Tenant energy emissions	7,030	6,944	5,110	4,746	7,294	6,888	7,170	7,326
Category 15: Investments	31,223	31,253	36,898	51,418	39,714	42,977	19,454	32,510
TOTAL SCOPE 3 EMISSIONS (excluding offsets)	234,729	254,084	142,251	163,862	186,176	221,531	206,300	239,203 ⁸



³ Emissions from UNSW international controlled entities are included in the CY2025 results (281 tCO₂e scope 2 emissions for electricity consumption). Large-scale Generation Certificates (LGCs) cannot be applied to cover the Scope 2 emissions of these international entities under the market-based approach. As a result, UNSW voluntarily purchased carbon credits to address these residual emissions.

In CY2025, UNSW voluntarily purchased carbon credits equivalent to its scope 1 emissions and scope 2 emissions from international offices. Credits were sourced through Greenfleet’s Australian native reforestation projects, supporting verified ecosystem restoration outcomes within Australia. To align with internationally recognised offset practices, these credits were paired with an equivalent volume of Verified Carbon Units (VCUs) from the Wind Power

Project in Tamil Nadu (Verra registry), delivered by Green Infra Renewable Energy Limited. Those carbon credits do not contribute to UNSW meeting its total scope 1, 2 and 3 emission reduction targets.

⁴ Calculated using the NSW grid average electricity emission factor (i.e. excluding renewable electricity purchases)

⁵ 83,176 LGCs were surrendered, equivalent to 101,422 MWh of electricity when accounting for the mandatory Renewable Power Percentage under the Renewable Energy Target and 64,911 tCO₂e of emissions when calculated using the NSW grid average electricity emission factor. Offsetting with LGCs is permissible under the market-based method for accounting for emissions from purchased electricity.

⁶ 7,248 LGCs were surrendered to cover UNSW tenants’ electricity consumption (Category 13), equivalent to 8,829 MWh of electricity when accounting for the mandatory Renewable Power Percentage under the Renewable Energy Target and 5,651 tCO₂e of emissions when calculated using the NSW grid average electricity emission factor.

⁷ The increase reflects an expanded Scope 3 inventory boundary through the inclusion of student travel under Category 6 (Business Travel).

⁸ Previously unreported Scope 3 emissions categories, representing 3,946 tCO₂-e (1.65% of total emissions), were identified during the CY2025 inventory process. These emissions have been excluded from CY2025 reported figures for consistency with prior years and will be included in future GHG reporting.

Environmental Data



Measuring and increasing nature value at Kensington campus

Description	Measure	Baseline data	2024	2025
Tree canopy cover	% of the total surface area that is covered by primary tree canopy	21% ⁹	23%	23%
Native trees	% of all trees that are native species (including locally Indigenous and endemic trees)	80%	81%	81%
Integrated green-blue infrastructure	Total area (m ²) of green roofs, walls and facades, ponds, and water features	1094 m ²	1094 m ²	1094 m ²
Plants and garden beds	% of the total area of Kensington campus that has plants and garden beds (excludes lawns)	13%	13%	13%
Total green space	% of the total surface area of Kensington campus that is green space (plants and garden beds, and lawns)	25%	26%	26%
Overall score (0-50)		25	27	27

Laboratory sustainability program continues to expand¹⁰

Faculty	Bronze	Silver	Gold	Total accreditations
Science	42	12	7	61
Medicine & Health	7	3	2	12
Engineering	4	5	1	10
Research & Enterprise	0	1	0	1
UNSW	53	21	10	84



⁹ Previous measure 19%; remeasured in 2025 using an updated methodology

¹⁰ Faculties reviewed and updated to reflect current reporting standards



Contributions

The Environmental Sustainability team would like to acknowledge the valuable contributions of our colleagues, as well as the wider UNSW staff and student community, for their commitment to sustainability across the university.