



EMISSIONS REDUCTION STRATEGY

OCTOBER 2026

ENVIRONMENTAL SUSTAINABILITY
OFFICE OF PROPERTY AND COMMERCIAL

EMISSIONS REDUCTION STRATEGY

STRATEGY AND TARGETS

Western is committed to being Climate Positive and Nature Positive by 2029. This strategy sets out how the University will reduce its emissions on the way to that target.

Western 2030

The University's strategic plan, [Western 2030 Strategic Plan 2025–2030](#) (published July 2025), has seven priorities. Priority 7, Securing Sustainability, commits Western to continue leading in a more resilient, environmentally sustainable and prosperous future through education, research and support for new industries.

Its Big Idea is for Western to be the nation's first university to be Climate and Nature Positive by 2029. Two of its measures of success relate directly to this strategy:

- Become Climate Positive 2029, delivering on the UN-led Race to Zero commitment to remove more carbon dioxide from the atmosphere than Western emits.
- Become Nature Positive 2029, as part of the pledge to the UN Nature Positive for Universities Network, restoring species and ecosystems affected by University activities by 30% from baseline to 2030, and 100% by 2050.

Securing Sustainability also commits Western to ethical social procurement and responsible investment, which supports the Scope 3 actions in this strategy.

Race to Zero

In November 2021, Western signed the United Nations-led Race to Zero for Universities and Colleges, committing to:

- Carbon Neutral by 2023 (achieved – certified by Climate Active since 2023), and
- Climate Positive by 2029.

Environmental Sustainability Action Plan

The [Environmental Sustainability Action Plan](#) (ESAP) turns these commitments into action. It is organised around four themes:

- Policy and Commitment
- Climate – Climate Positive 2029, carbon neutrality, carbon transition planning, climate risk and adaptation, and nature-based strategies
- Social and Corporate Responsibility – Living Labs, ethical practices, circular economy, supply and value chain, and reporting
- Nature – Nature Positive 2029, biodiversity, water cycle, regenerative agriculture, urban landscapes and Indigenous Knowledge

This strategy sits under the ESAP Climate theme.

Wider alignment

The strategy also aligns with the decadal strategy [Sustainability and Resilience 2030](#). It has nine interconnected priority statements: Aboriginal and Torres Strait Islander Knowledges, Regenerative Systems, Resilient Cities, Climate Action, Partnerships, Justice, Food Security and Sustainable Agriculture, Ethical Artificial Intelligence, and Economic Transitions.

Western is an educational signatory to the [SDSN Australia, New Zealand and Pacific](#) university commitment to the UN Sustainable Development Goals. Western 2030 notes the University ranked first in the Times Higher Education Impact Rankings four years in a row (2022–2025).

PROGRESS TOWARDS TARGETS

Western has been certified carbon neutral by Climate Active since April 2023, and has kept certification every year since. Emissions fell 10.5% in CY2025, the latest reported year.

Carbon neutral certification

Certification follows Climate Active's Carbon Neutral Standard for Organisations, which builds on the international Greenhouse Gas Protocol. Each year Western:

- measures its carbon footprint across Scopes 1, 2 and 3
- engages stakeholders on emissions reduction, and
- buys carbon offsets for the remaining emissions.

The boundary covers Western's Australian business operations and its subsidiaries. International campuses are outside it because Western does not have operational control of them.

Reporting year	Total emissions (t CO ₂ -e)	Note
CY2025	52,025	Baseline for the 2030 targets
CY2024	58,131	
CY2023	53,736	
CY2022	47,529	First certified year
CY2021	58,026	Original base year

Source: [Race to Zero for Universities and Colleges Status Report, April 2026](#).

In CY2025, Scope 1 was 4,641 t CO₂-e, Scope 2 was zero (market-based) and Scope 3 was 47,383 t CO₂-e, about 91% of the total. The largest sources were business services (25.7%), non-residential building construction and fit-out (11.5%) and computer and technical services (11.5%).

Construction emissions fell as major capital projects finished. Some categories rose, mainly ground travel for transnational education partnerships and demand for IT, cloud and digital services. These will shape the 2026 areas of focus.

Targets to 2030

To reach Climate Positive 2029, Western has set three targets against a 2025 baseline:

- reduce Scope 1 and 3 emissions by 70% from 52,025 t CO₂-e by 2030
- increase on-site solar PV capacity by 30% from 1,067 kW by 2030
- develop and implement a carbon insetting strategy that addresses 30% of the footprint by 2030.

Carbon Transition Plan

The Five-Year Carbon Transition Plan, prepared by Veolia Energy Solutions with Western stakeholders, sets out the technical pathway. Its strategies are summarised in the [Carbon Transition Paper](#) (revised September 2024). It covers Scope 1 (direct emissions), Scope 2 (purchased electricity), Scope 3 (the value chain) and Scope 4 (avoided emissions outside the value chain).

The sections below set out the actions for each scope.

SCOPE 1 AND 2 – ENERGY AND FUELS

All of Western's purchased electricity comes from renewable sources, so market-based Scope 2 emissions are zero. The focus now is removing natural gas and fossil fuels from campus operations by 2030.

Indirect emissions (electricity – Scope 2)

- **Target:** purchase 100% renewable electricity (ongoing).
- **Target:** increase on-site solar PV capacity by 30% from the 2025 baseline of 1,067 kW by 2030.

Renewable electricity supply. The large supply contract has been renewable since July 2021. It moved from GreenPower to Snowy Hydro's TrueGreen renewable energy, matched with Large-scale Generation Certificates, in 2024. In 2025 it covered 98% of electricity use. The small supply contract has been GreenPower since 2022 and covered the other 2%.

On-site solar. Western is installing rooftop and carpark solar to cut grid use and manage peak load. After the Kingswood pilot, three solar carpark structures were installed at Campbelltown, Hawkesbury and Parramatta in 2024. On-site solar generated 1,152,963 kWh in 2025, all used on site.

At Kingswood, Building Z runs on 200 kW of rooftop and 100 kW of carpark solar with 60 kW of battery storage, in partnership with the School of Engineering, Design and Built Environment.

Direct emissions (gas, fuels and refrigerants – Scope 1)

- **Target:** electrify all campuses under the Electrification Roadmap (2025–2030), contributing to the 70% reduction in Scope 1 and 3 emissions.

Scope 1 emissions were 4,641 t CO₂-e in CY2025. The largest sources were natural gas (2,560 t), refrigerants (1,183 t) and horticulture and agriculture (598 t).

Electrification Roadmap. Developed in 2025 to guide asset renewal, the roadmap covers:

- converting gas-powered HVAC and central energy plant to electric heat pumps
- replacing fuel-powered equipment and vehicles, such as for campus landscape management

- moving to low-emission refrigerants, including trials of natural refrigerants where feasible
- integrated thermal and battery storage where it fits.

Conversion of domestic hot water from gas to electric began in December 2024. About 50% of units across the University were replaced during 2025, with the rest due by 2030.

The Carbon Transition Plan also schedules HVAC upgrades (2024–2027) and energy-efficient lighting (2024–2026).

Transport and EV charging. EV charging stations are now built into the solar carparks and run on on-site renewables (achieved 2025). Green Parking Permits give electric vehicle drivers access to parking under the solar structures. Western is planning infrastructure for an electric vehicle fleet, and its Campus Network Strategy encourages staff and students to travel by public transport, including the new light rail stations at Parramatta South and Westmead.

Sources: [Race to Zero Status Report 2026](#), [Climate Active PDS CY2024](#), [Carbon Transition Paper](#), [Sustainable Energy](#).

SCOPE 3 – VALUE CHAIN

Scope 3 is about 91% of Western's footprint, so most of the 70% reduction must come from the value chain.

- **Target:** reduce Scope 1 and 3 emissions by 70% from the 2025 baseline (52,025 t CO₂-e) by 2030.
- **Target:** develop and implement a carbon insetting strategy that addresses 30% of the footprint by 2030.

In CY2025 the largest Scope 3 categories were professional services (22,075 t CO₂-e), construction materials and services (6,406 t), ICT services and equipment (6,037 t), air travel (3,127 t) and land and sea transport (3,005 t).

Sustainable procurement and supply chain

In 2024 Western began reviewing supply chain emissions through the NSW Government's Sustainability Advantage program – SVC Leadership Accelerator: Engaging the Value Chain. In 2025 the Procurement team built on this to develop the [Sustainable Procurement Framework](#). It embeds emissions reduction and sustainable materials alongside ethical sourcing, inclusive engagement and the elimination of modern slavery, and aligns with Western 2030 Priority 7.

The framework is the platform for strategies on each Scope 3 category. The ESAP Social and Corporate Responsibility theme covers supply and value chain, circular economy and ethical practices.

Carbon Transition Plan actions:

- refocus procurement processes on carbon neutral or better suppliers (2023–2026)
- replace water-wasting devices with efficient ones (2024–2028)
- improve collection and sorting of organic waste for compost or renewable gas (2024–2028)
- improve recycling, especially in construction and refurbishment, and minimise plastics (2023–2029).

Scope 3 categories in scope include waste and food services, water supply, facilities operation, building construction and fit-out, business and ICT services, office consumables, and staff and student travel.

Inter-campus travel is assessed as immaterial and is not quantified.

Green Star buildings and precincts

Western has had Green Star certified buildings since 2014. To date, 13 buildings have been certified by the Green Building Council of Australia for design and/or as-built construction, with more underway.

Certified buildings include Werrington Park Corporate Centre, The College buildings at Nirimba, Milperra, Kingswood and Lithgow, Macarthur Clinical School, the Lang Walker AO Medical Research Building at Campbelltown, the Science Building at Parramatta, the Peter Shergold Building, the Ngara Ngura Building in Liverpool, the Parramatta Engineering Innovation Hub, Westmead Innovation Quarter, and Bankstown City campus. Bankstown City and the Lang Walker AO Medical Research Building both achieved 6 Star Green Star (Design and As Built v1.3).

Current directions:

- maintain the number of Green Star buildings and precincts, and keep looking for new opportunities (ongoing)
- continue Green Star ratings for new builds, and trial Green Star Performance for refurbishments (2025–2028)
- investigate a Green Star Communities rating for the Werrington campus redevelopment.

Since 2023, new Green Star projects must be Climate Positive to reach 5 or 6 Star ratings. Western's non-residential development is also subject to the NSW Sustainable Buildings SEPP, in effect since 1 October 2023, which requires emissions measurement, energy and water standards, and net zero statements.

Sources: [Race to Zero Status Report 2026](#), [Carbon Transition Paper](#), [Green Star Buildings and Precincts](#).

DATA MANAGEMENT AND TARGETS

Emissions data builds on the systems used for mandatory National Greenhouse and Energy Reporting (NGER) and Climate Active certification. Western reports consumption and emissions to the Clean Energy Regulator, Climate Active, the Tertiary Education Facilities Management Association and Times Higher Education, and publishes results on the [Environmental Performance](#) pages.

The 14 facilities used for Climate Active match those reported under NGER, with fleet fuel reported as a separate NGER facility. An external consultant, Ironbark Sustainability, prepares the carbon account. The next Climate Active technical assessment is due for the CY2027 report.

Ongoing improvements:

- an internal data stewardship role, compiling all data in line with the NGER facility structure
- data governance, with clear data ownership in each business area
- work with Finance to map general ledger codes to emission sources, following the CY2025 correction for previously omitted business services spend
- automating data collection through data platforms where possible.

Summary of targets, measurement and verification

Target	Due	Status (latest verified)	Measurement and verification
Carbon neutral certification	Annual	Achieved April 2023; maintained to CY2025	Climate Active certification
100% renewable electricity	Ongoing	Achieved; 106.9% renewable in CY2025 including mandatory renewables	LGCs and GreenPower in supply contracts
70% reduction in Scope 1 and 3 emissions (52,025 t CO ₂ -e baseline)	2030	Baseline set CY2025	Climate Active methods
30% increase in on-site solar PV (1,067 kW baseline)	2030	Baseline set 2025	Asset inventory and NGER
Carbon insetting strategy addressing 30% of footprint	2030	Not yet reported	Race to Zero reporting
Electrify all campuses (Electrification Roadmap)	2030	Roadmap developed 2025; about 50% of gas hot water units replaced in 2025	Asset inventory and NGER
Climate Positive	2029	In progress	Race to Zero reporting
Nature Positive (30% restoration from baseline)	2029–2030	Campus biodiversity baseline measured	Nature Positive Universities reporting

Sources: [Race to Zero Status Report 2026](#), [Climate Active PDS CY2024](#), [Western 2030](#).

STAKEHOLDER ENGAGEMENT

Stakeholder engagement is a requirement of Climate Active certification and is needed for good data, shared understanding of the footprint and joint action planning.

The Carbon Transition Plan was developed with Western stakeholders, including Campus Operations. Engagement continues through:

- annual data collection with business areas for Climate Active and NGER
- supply chain work with Procurement under the Sustainable Procurement Framework
- Living Labs linking campus operations with teaching and research, such as Solar Engineering, Urban Heat and Water Recycling
- reporting to the University's senior executive.

WEBSITE REFERENCES

Strategy and targets

- [Western 2030 Strategic Plan 2025–2030](#)
- [Vice-Chancellor's Race to Zero pledge \(26 November 2021\)](#)
- [Race to Zero for Universities and Colleges Status Report, April 2026](#)
- [Carbon Transition Paper \(revised September 2024\)](#)
- [Sustainability and Resilience 2030](#)
- [Western's commitment to the SDGs: SDSN Australia, New Zealand and Pacific](#) (signed 3 March 2017)
- [Environmental Sustainability Action Plan](#)
- [Policy and Commitment \(ESAP\)](#)
- [Climate theme \(ESAP\)](#)
- [Carbon Neutrality \(ESAP\)](#)
- [Resilience and Climate Change \(ESAP\)](#)
- [Climate Active Public Disclosure Statement, CY2024](#)

Energy consumption and on-site solar generation (Scope 1 and 2)

- [Sustainable Energy \(ESAP\)](#)

Green Star buildings and supply chain (Scope 3)

- [Green Star Buildings and Precincts \(ESAP\)](#)
- [Sustainable Procurement Framework](#)

Data management

- [Environmental Performance](#)