

UNIVERSITY OF CYBERJAYA

SDG IMPACT REPORT 2025

SDG 7: Affordable and Clean Energy

7 AFFORDABLE AND CLEAN ENERGY

SDG 7 · AFFORDABLE AND CLEAN ENERGY

Our Commitment to Affordable and Clean Energy

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Every lecture, laboratory and hospital simulation on our campus runs on electricity. At the University of Cyberjaya, we want that energy to be as clean and as efficient as we can make it, and we want to help our students and our neighbours understand why it matters.

Our commitment to SDG 7 is set out in the Green Campus Action Plan 2024–2028 and anchored in our Zero by 2050 Climate Strategy. We generate our own solar power, cut the energy our buildings waste, measure our use every month and are moving our vehicle fleet to electric. Beyond campus, we turn waste oil into biofuel and teach the link between energy and climate change.

This report sets out our goals, the progress we made against them in 2025, and the people and projects behind it.

Our goals

01 RESEARCH ON CLEAN ENERGY
Carry out research on energy efficiency and solar power, including with industry. 7.1

02 BUILD AND RENOVATE EFFICIENTLY
Apply energy-efficient standards to every renovation and new building. 7.2.1 · 7.2.2

03 PLAN, MEASURE AND CUT ENERGY USE
Follow a plan to cut energy use and emissions, and find waste through monthly monitoring. 7.2.3 – 7.2.5

04 INVEST RESPONSIBLY
Keep our investments out of fossil fuel companies. 7.2.6

05 USE LESS ENERGY PER SQUARE METRE
Bring down the energy used for every square metre of campus. 7.3.1

06 COMMIT TO RENEWABLE ENERGY
Reach a net-zero campus by 2050, powered by renewable energy. 7.4.2 · 7.5.1

07 SHARE ENERGY KNOW-HOW
Help the community, industry and policy makers use energy more efficiently. 7.4.1 · 7.4.3 · 7.4.4

08 BACK LOW-CARBON INNOVATION
Support companies and start-ups developing low-carbon technology. 7.4.5

KEY FACTS · 2025

2025 at a Glance

In 2025 we cut our grid electricity by nearly a fifth against our audited 2023 baseline, generated our own solar power and began electrifying our fleet.

19.8%
less grid electricity than in 2023

492,295
kWh of solar power generated on our rooftops

12.5%
of campus electricity from on-site solar

92.4
kWh per m² of floor area, down from 115.2 in 2023

377 t
of CO_2 avoided by solar and LED lighting

RM 332,803
saved on utility bills in 2025

Indicator by indicator

REF	WHAT THE ASKS	OUR 2025 POSITION
7.1	Research on clean energy	Industry-funded research on solar deployment in higher education with Lumarix, and on equipment insulation with Teknobumi
7.2.1	Energy-efficient building standards	Green Campus Action Plan requires LED lighting, efficient air-conditioning and solar-ready roofs in all renovations and new builds
7.2.2	Upgrading buildings	1,300 LED retrofits, occupancy sensors in offices and toilets, and 1.9 MW of rooftop solar
7.2.3	Carbon reduction process	Green Campus Action Plan 2024–2028 and Emission Reduction Roadmap 2025–2030, under the GHG Protocol
7.2.4, 7.2.5	Energy reduction plan; finding waste	Annual targets against an audited 2023 baseline; monthly meter readings and a weekly solar dashboard
7.2.6	Divestment policy	Investment policy excludes fossil fuel producers
7.3.1	Energy use per m²	92.4 kWh/m² (0.333 GJ/m²) in 2025, down from 115.2 kWh/m² in 2023
7.4.1	Community outreach on energy efficiency	Used cooking oil to biofuel drive and Climate Fresk workshop for 142 participants and 18 school guests
7.4.2	Commitment to 100% renewable energy	Zero by 2050 Climate Strategy commits the University to a net-zero campus
7.4.3	Energy efficiency services for industry	Industry-funded research for Teknobumi on insulating healthcare equipment
7.4.4	Policy development for clean energy	Contributed to consultations on the Cyberjaya Smart Low Carbon City Action Plan 2025
7.4.5	Assistance to low-carbon innovation	RM 254,000 industry-funded research with Lumarix on solar deployment in higher education
7.5.1	Low-carbon energy use	12.5% of campus electricity from on-site solar in 2025

SECTION 01

01

Clean Power and Efficient Buildings

Generating our own solar power and cutting the electricity our buildings waste.

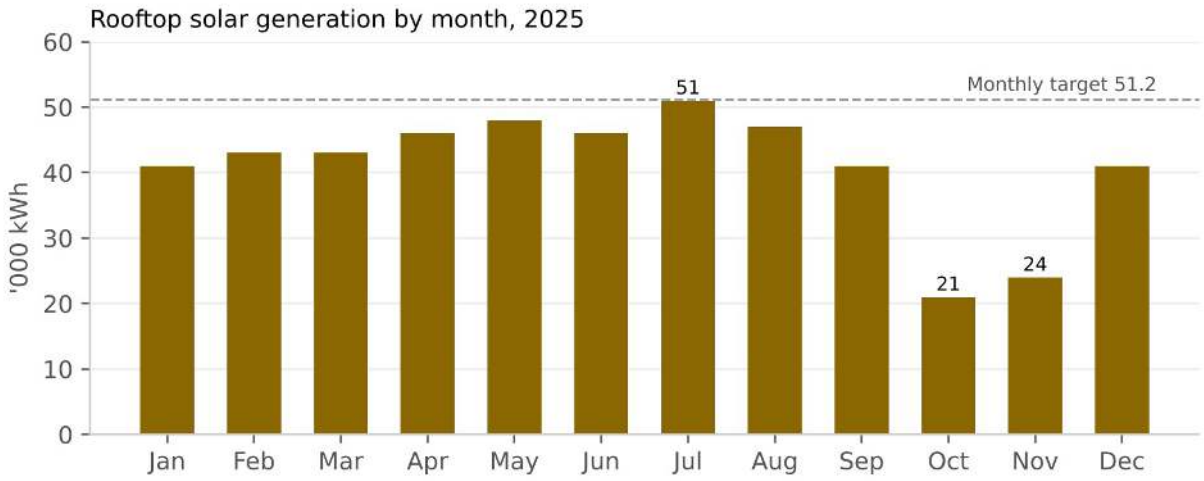
IN THIS SECTION

— *Generating Our Own Clean Power: 1.9 MW of Rooftop Solar*
— *Lighting Only What We Need: LED Retrofit and Occupancy Sensors*
— *One-Fifth Less Grid Electricity*

CLEAN POWER AND EFFICIENT BUILDINGS

Generating Our Own Clean Power: 1.9 MW of Rooftop Solar

CYBERJAYA · JANUARY – DECEMBER 2025



The University's largest clean-energy investment is a 1.9 MW grid-tied rooftop solar photovoltaic system spread across its campus buildings, fully commissioned in the first quarter of 2024. The Green Campus Action Plan set it a target of 614,080 kWh a year, enough to offset 341 tonnes of CO_2.

In 2025, its first full year, the system generated 492,295 kWh, 80.2% of target, and supplied about 12.5% of all the electricity used on campus. At the commercial tariff of RM 0.509 per kWh, that saved RM 250,578 and offset 288 tonnes of CO_2. Output peaked between May and July at around 47,000 to 51,000 kWh a month.

In October and November, generation fell to between 20,000 and 24,000 kWh. The weekly solar yield dashboard picked up the dip quickly, and the likely causes, panel soiling or an inverter fault, are now under investigation. From 2026, a quarterly panel-cleaning schedule, a preventive maintenance contract and spare inverter stock will keep the system closer to its full potential.



Factfile

WHEN Commissioned Q1 2024; first full year 2025
WHERE Campus rooftops, University of Cyberjaya
SIZE 1.9 MW grid-tied photovoltaic
OUTPUT 492,295 kWh; 12.5% of campus electricity
LED BY Facilities Management, Green Campus Committee
INDICATORS 7.5.1 Low-carbon energy use · 7.2.2 Upgrading buildings · 7.2.3 Carbon reduction

CLEAN POWER AND EFFICIENT BUILDINGS

Lighting Only What We Need: LED Retrofit and Occupancy Sensors

CYBERJAYA · 2025

152,640 kWh

saved every year by replacing 1,300 fluorescent tubes with LEDs

Basement car parks and outer corridors are lit around the clock, making them one of the largest lighting loads on campus. In 2025, the University replaced 1,300 fluorescent tubes in these areas with 18 W LED equivalents.

The retrofit saves 12,720 kWh every month, or 152,640 kWh a year, cutting the electricity bill by RM 77,694 and avoiding 89 tonnes of CO_2. It was the only Green Campus initiative to hit its target exactly in every month of 2025.

Alongside the new lamps, heat-activated (PIR) occupancy sensors were fitted in staff offices and toilets, so lights switch off when rooms are empty. Ground-floor public areas were left out for safety. The University's outcome report concludes that the retrofit's results make a clear case for extending LED lighting to the rest of the campus.

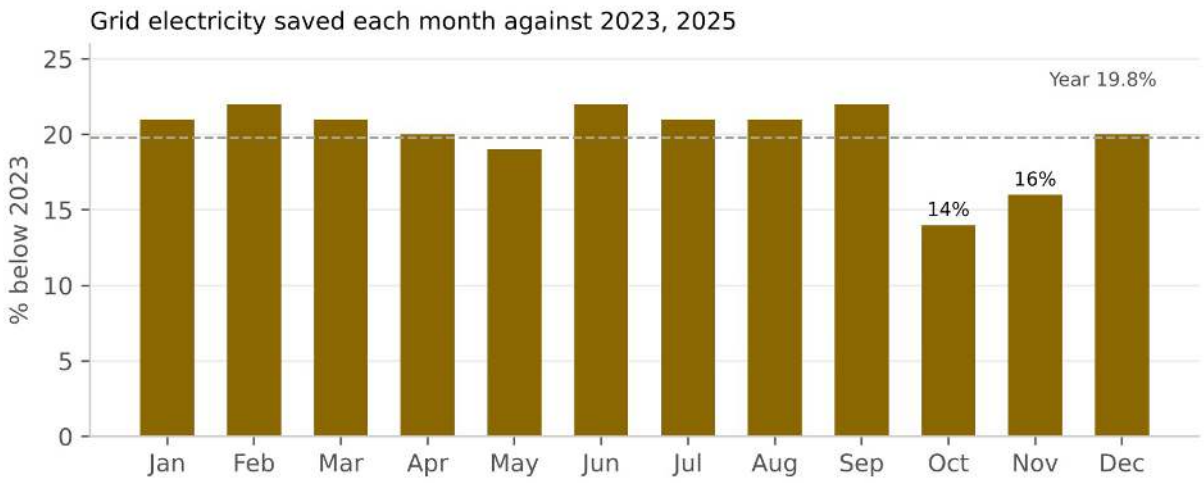
Factfile

WHEN 2025
WHERE Basement car parks, corridors, staff offices and toilets
SCALE 1,300 LED tubes; PIR sensors
SAVINGS 152,640 kWh, RM 77,694 and 89 t CO_2 a year
LED BY Facilities Management
INDICATORS 7.2.2 Upgrading buildings to higher energy efficiency · 7.2.5 Energy wastage identification

CLEAN POWER AND EFFICIENT BUILDINGS

One-Fifth Less Grid Electricity

CYBERJAYA · 2023 – 2025



The Green Campus Action Plan started with an audited baseline: in 2023, the campus used 4,282,497 kWh of grid electricity from Tenaga Nasional Berhad, costing RM 2,179,791. Facilities Management reads the meters every month and reports to the Green Campus Committee, so that progress and waste can be tracked month by month.

In 2025, grid consumption fell to 3,433,636 kWh, a cut of 848,861 kWh or 19.8%. Every month came in between 14% and 22% below 2023, with the smallest savings in October and November, when solar output dipped. Across the campus floor area of about 37,160 m², energy use fell from 115.2 to 92.4 kWh per square metre.

Solar generation and LED savings together delivered 644,935 kWh of the reduction. With the water-efficient toilet retrofit, the Green Campus initiatives saved RM 332,803 in 2025 and avoided 377 tonnes of CO_2.



Factfile

WHEN Baseline 2023; results 2025
WHERE Whole campus, about 37,160 m²
RESULT 19.8% less grid electricity
INTENSITY 92.4 kWh/m², down from 115.2
LED BY Facilities Management, Green Campus Committee
INDICATORS 7.2.4 Plan to reduce energy consumption · 7.2.5 Energy wastage identification · 7.3.1 Energy use per m²

SECTION 02

02

A Low-Carbon Campus

Cutting the emissions from how we travel, and governing the plan that gets us to zero.

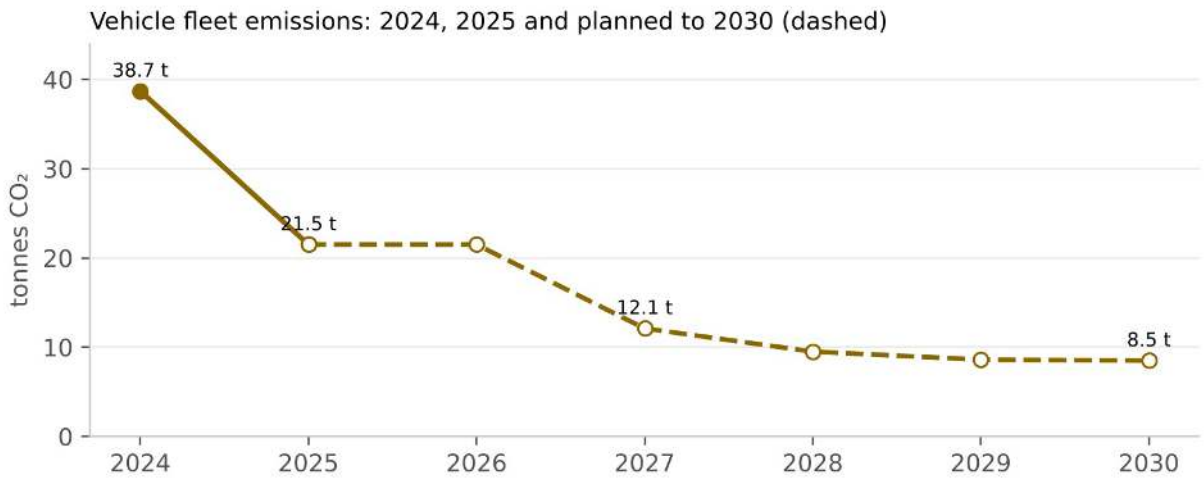
IN THIS SECTION

— *Electrifying the University Fleet*
— *How the Green Campus Plan Is Governed*

A LOW-CARBON CAMPUS

Electrifying the University Fleet

CYBERJAYA · 2025 – 2030



In 2024, the University's nine vehicles, four 44-seater diesel buses, three 16-seater vans and two sedans, emitted 38.7 tonnes of CO_2, with the ageing buses responsible for 81.5%. The Emission Reduction Roadmap 2025–2030 sets out a phased plan to cut fleet emissions by 78%, to about 8.5 tonnes, by 2030.

Phase 1 began in 2025. Student accommodation moved to a new hostel 300 metres from campus, within walking distance, removing a 19,200 km-a-year shuttle route. One end-of-life diesel bus and both sedans were retired, and the University bought its first electric vehicle, a BYD M6 electric MPV, with a 7 kW charging bay on campus.

Phase 1 cuts fleet emissions from 38.7 to 21.5 tonnes, down 44%, and annual running costs from RM 122,283 to RM 85,973. Electric vans and two more charging bays follow in 2028. Emissions are tracked through fuel logs, charging records and odometer readings, reported quarterly under GHG Protocol Scope 1.





Factfile

WHEN Phase 1, 2025; full plan to 2030
WHERE University of Cyberjaya
CHANGE First EV and 7 kW charging bay
RESULT Fleet CO_2 down 44%, 38.7 t to 21.5 t
LED BY Facilities Management
INDICATORS 7.2.3 Carbon reduction and emission reduction process · 7.5.1 Low-carbon energy use

A LOW-CARBON CAMPUS

How the Green Campus Plan Is Governed

CYBERJAYA · 2024 – 2028

Zero by 2050

the University's commitment to a net-zero campus, delivered through the Green Campus Action Plan

The Green Campus Action Plan 2024–2028 is overseen by a Green Campus Committee chaired by the Vice-Chancellor, which meets quarterly and reports to the CEGB Executive Committee. It is anchored in the University's Zero by 2050 Climate Strategy and aligned with the GHG Protocol Corporate Standard, the Cyberjaya Smart Low Carbon City Action Plan 2025 and Malaysia's National Energy Transition Roadmap.

Monitoring is built into the plan. Facilities Management reads electricity meters monthly, the solar contractor runs a weekly yield dashboard, and a fleet emissions dashboard is reviewed every quarter. The University works with Majlis Perbandaran Sepang, the Cyberjaya Recycling Centre and Generasi Peduli Sampah to deliver it.

The next steps are set out to 2028: rainwater harvesting and quarterly panel cleaning from 2026, Green Campus targets built into staff performance goals, a standalone sustainability report and a first UI GreenMetric submission in 2027, and independent verification of emissions data from 2027.

Factfile

WHEN 2024 – 2028
WHO Green Campus Committee, chaired by the Vice-Chancellor
REPORTS TO CEGB Executive Committee
FRAMEWORK GHG Protocol; Zero by 2050 Climate Strategy
WITH Majlis Perbandaran Sepang; Cyberjaya Recycling Centre; Generasi Peduli Sampah
INDICATORS 7.2.3 Emission reduction process · 7.2.4 Energy reduction plan · 7.4.2 Renewable energy commitment

SECTION 03

03

Energy in the Community

Bringing students, staff and neighbours into the move to cleaner energy.

IN THIS SECTION

— *From Frying Pan to Fuel Tank: Used Cooking Oil into Biofuel*
— *Playing the Climate Fresk: Energy's Role in Climate Change*

ENERGY IN THE COMMUNITY

From Frying Pan to Fuel Tank: Used Cooking Oil into Biofuel

CYBERJAYA · 10 DECEMBER 2025

142 litres

of used cooking oil collected in a day and processed into biofuel

Biofuel made from used cooking oil can replace some of the diesel used in transport, cutting emissions from a fuel that would otherwise be wasted. On 10 December 2025, the last day of SDG Week, the University teamed up with Aedes Biobased Fuel (ABBF) through its KISMAT (Kitar Semula Minyak Masak) initiative to collect used cooking oil at Level UG.

Students, staff and campus food outlets brought their used oil and learned how it is turned into biodiesel instead of being poured down drains, where it blocks pipes and pollutes rivers. By the end of the day, 142 litres had been collected, most of it from the cafeteria vendors, with bottles brought from home by students and staff living in Cyberjaya. ABBF confirmed the full amount would be processed into biofuel.

The collection is now monthly. All campus food vendors must hand their used oil to ABBF, a condition added to their tenancy agreements, and Facilities records the volume each month as part of its waste and recycling data.

Factfile

WHEN 10 December 2025, then monthly
WHERE Level UG, University of Cyberjaya
WITH Aedes Biobased Fuel (ABBF), KISMAT
REACH 142 litres collected
LED BY SDG Week Committee
INDICATORS 7.4.1 Community outreach on clean energy · 7.5 Low-carbon energy

ENERGY IN THE COMMUNITY

Playing the Climate Fresk: Energy's Role in Climate Change

CYBERJAYA · 10 DECEMBER 2025



Burning fossil fuels for electricity, transport and industry is the largest single driver of climate change. During SDG Week on 10 December 2025, the University's SDG Committee hosted a Climate Fresk workshop, where cross-faculty teams used cards based on the findings of the Intergovernmental Panel on Climate Change (IPCC) to trace how energy use leads to rising emissions, higher temperatures and extreme weather.

Led by a certified Climate Fresk facilitator, the workshop drew 142 participants from all faculties, along with 18 teachers and pupils from two Cyberjaya secondary schools. In a short survey before and after, the share who could explain the link between greenhouse gases and extreme weather rose from 38% to 81%.

Teams' top ideas, including a campus switch-off campaign, more shaded walkways and a car-pooling scheme, went to the sustainability committee for the draft Climate Action Plan. The switch-off campaign builds on the University's 2025 energy results, inviting everyone on campus to help use less grid electricity.

Factfile

WHEN 10 December 2025
WHERE University of Cyberjaya
WITH Climate Fresk (certified facilitator)
REACH 142 participants and 18 school guests
LED BY SDG Coordinating Committee
INDICATORS 7.4.1 Community outreach for energy efficiency · 13.3 Climate education

University of Cyberjaya
SDG Coordinating Committee
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