ULUSLARARASI KIBRIS ÜNİVERSİTESİ
CYPRUS INTERNATIONAL UNIVERSITY

TIMES HIGHER EDUCATION / IMPACT RANKINGS EVIDENCE FACT FILE

SDG 13 / INDICATOR 13.2.1
Low-Carbon Energy Measurement

Cyprus International University • North Cyprus – Türkiye • www.ciu.edu.tr



SDG 13	13.2.1	1.3 MWp
Climate Action	Measurement of low-carbon energy used	Solar PV capacity, monitored online

Purpose of this evidence file

This fact file answers THE Impact Rankings SDG 13 measure 13.2.1: “Does your university as a body measure the amount of low carbon energy used across the university?” It combines three CIU evidence documents (the low-carbon energy use document and the GreenMetric files on smart buildings and renewable energy) with material from the CIU website. It shows what CIU measures (solar PV output by array and year, wind output, solar thermal, CHP test runs and building monitoring), and how it measures it, above all a campus-wide consumption total.

INDICATOR 13.2.1

Low-carbon energy measurement at a glance

CIU records the output of its solar, wind and CHP installations and monitors buildings online.

CIU logs solar PV output by array and year (1,876,143 kWh in 2024–2025), views it online through its PV monitoring portal, and records wind output, CHP test runs and solar thermal capacity. Building monitoring covers selected buildings.

1,876,143 kWh	8 years	about 30%
Solar PV output, academic year 2024–2025	Annual PV output recorded, 2017–2018 to 2024–2025	Renewable share of campus energy

Headline result

CIU measures what its clean-energy plants produce: the 1.3 MWp PV plant is logged automatically and charted by array for eight years. The next step for the indicator is to set that output against total campus consumption, so the “about 30%” can be shown as a measured figure.

Evidence scope

No.	Evidence item	Where
1	Measurement register: each low-carbon source, how it is measured, latest figure	Page 3
2	Solar PV output 2017–2018 to 2024–2025 and capacity by array	Page 4
3	Monitoring tools: PV portal, building monitoring, weather and wind station	Page 5
4	Plants in test or build: CHP, biogas, wind, solar thermal	Page 6
5	Demand side: energy-efficiency measures and smart buildings	Page 7
6	Further CIU website material, points to strengthen and sources	Pages 8–9

MEASUREMENT REGISTER

What CIU measures, and how

Each low-carbon source with the way CIU records it and the latest figure in CIU's documents.

Ref.	Source	How it is measured	Latest figure stated
L1	**Solar PV** 1.3 MWp, since 2015	Output logged automatically for each array and viewed through the PV monitoring portal (SunnyPortal); annual totals charted by array.	1,876,143 kWh in 2024–2025; about 1,940,000 kWh in 2022–2023 (CIU website).
L2	**Solar thermal** Residential zones	Panel count and capacity estimate; the evidence does not describe metering.	More than 300 panels; "almost equal to 2268 MWh" a year.
L3	**Wind turbine** 2 kW, storage building	Output recorded for the reporting period; a wind station at the same height measures local wind.	About 1,352 kWh in the reporting period; supplies the building directly.
L4	**CHP unit** 800 kW	Test runs recorded while feeding the grid. The unit is installed and approved but waits for the biogas plant.	15,289 kWh in a 22-hour test (low-carbon document); about 233,500 kWh in a two-week test (renewable-energy file).
L5	**Biogas plant** Under construction	No output yet. Planned design: 411 m^3/h of methane, 1,169 kW electricity and 700 kW heat.	Completion moved from 2025 to 2026 owing to approvals.
L6	**Campus share** Whole university	Stated as a share of campus energy; no consumption total or calculation is shown.	"Around 30%" (Climate Action page); "roughly one-third" and "almost 30%" (tracking document).
L7	**Building monitoring** Selected buildings	Meter tracking, smart HVAC and indoor-climate control, ERTEK monitoring; smart classrooms display energy and CO_2 use on LED screens.	EH Building monitored from 2024, new dormitories from 2025; other buildings to follow.

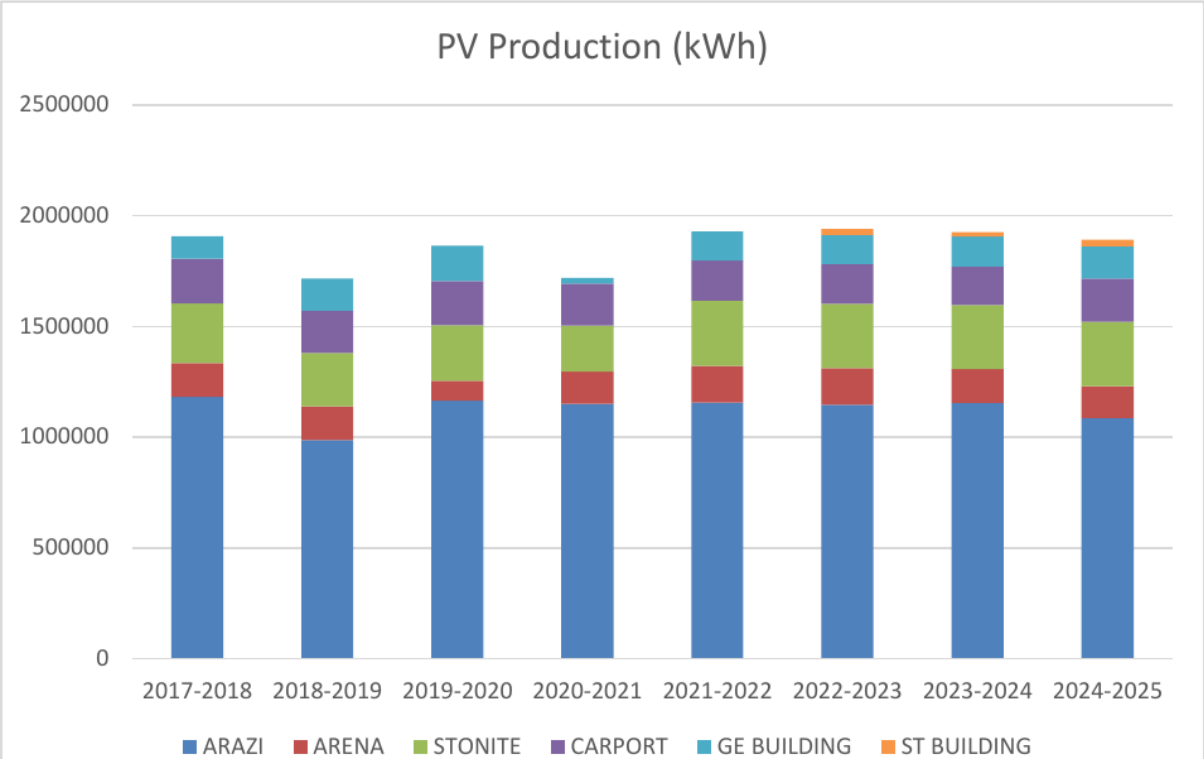
Reading the register

L1 is the strongest line: a long, array-level record with a monitoring portal. L2 to L5 are either estimates, short tests or plants still being built, and L6 is a stated share without its calculation.

SOLAR PV OUTPUT

Eight years of PV production, by array

The 1.3 MWp plant combines five mounting types across six array groups.



PV production (kWh) by array group, academic years 2017–2018 to 2024–2025. Source: CIU low-carbon energy use document.

Array	Capacity	Type
Land (Arazi)	750 kW	Ground-mounted array
Stonite	200 kW	Roof array
ST car port	135 kW	Solar car port
Arena car port	100 kW	Solar car port
Roof	100 kW	Flat and inclined roofs
Façade (ST Building)	21 kW	Building-integrated PV
Total	1,306 kW	Described as 1.3 MWp

Evidence note

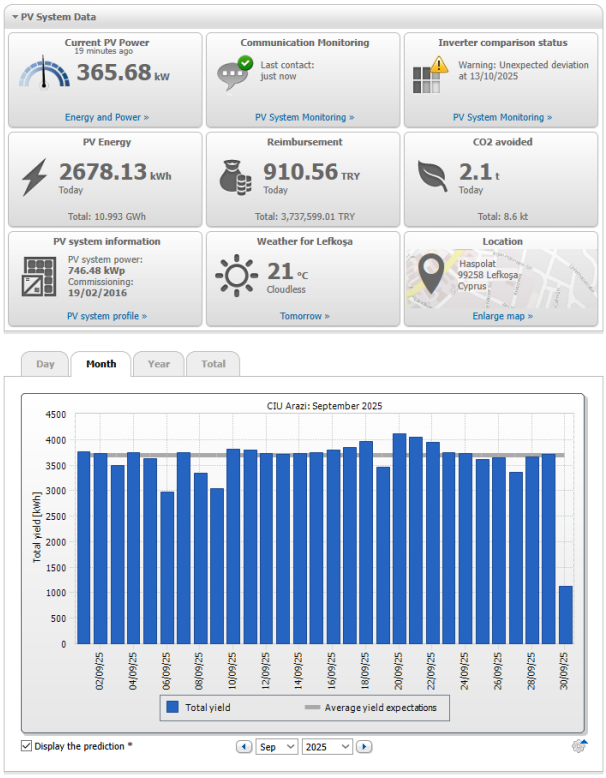
The chart reads roughly 1.7 to 1.9 million kWh a year across the eight years, with 2024–2025 shown in the text as 1,876,143 kWh.

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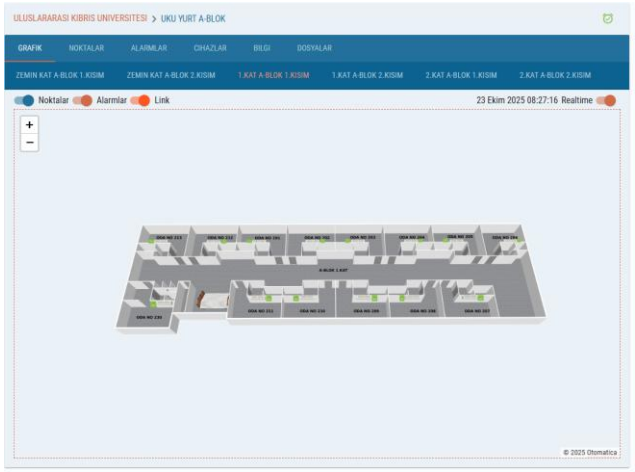
MONITORING TOOLS

How the readings are taken

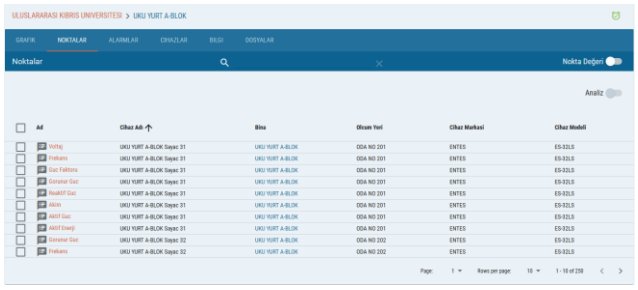
Screens and equipment from CIU's GreenMetric evidence files.



PV monitoring portal: live power, energy generated and monthly yield.



Building monitoring screen (ERTEK equipment).



Device list in the monitoring system.

What the tools show

PV portal. The screen in the file is for the land (Arazi) array only: 746.48 kWp, commissioned 19 February 2016, 10.993 GWh generated in total and 8.6 kt of CO_2 avoided in total, with a daily chart for September 2025. It also shows an inverter-deviation warning dated 13 October 2025.

Building monitoring. ERTEK equipment supports smart monitoring and control; CIU states that the EH Building was added in 2024 and the new dormitories in 2025.

Smart classrooms. A project in the ST Building adds LED screens that show energy and CO_2 consumption in each room.

Weather and wind. A weather station and wind tracker support solar and wind tracking and future projects.

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OTHER LOW-CARBON PLANTS

Wind, solar thermal, CHP and biogas

Smaller or developing sources, with the figures CIU states for each.



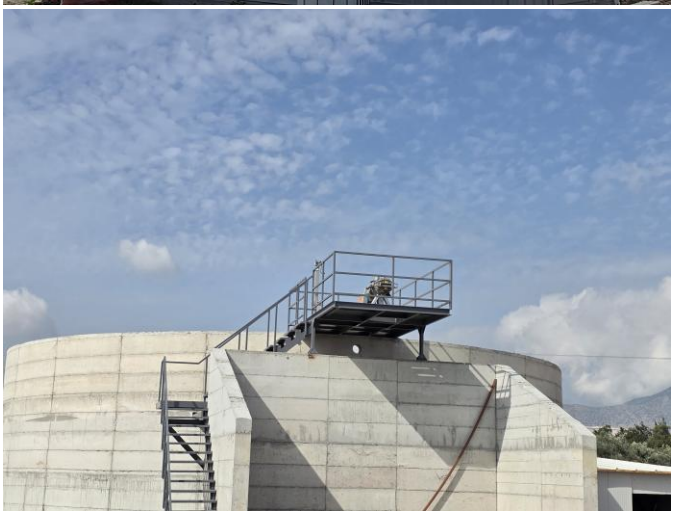
2 kW wind turbine on the storage building (about 1,352 kWh in the reporting period).



Solar thermal panels for residential hot water (more than 300 panels).

Concrete pouring for the digester base







Biogas site with the CHP building, still under construction.





Status

CHP. Potential of more than 7 million kWh a year if run continuously; this is a potential figure, not a measured one. Both test results are listed on page 3.

Biogas. Approvals from the Renewable Energy Department and KIB-TEK are stated as obtained; the plant is under construction.

DEMAND SIDE

Energy-efficiency measures across the campus

Measures that reduce the energy the campus needs, with the share of building area or equipment covered.

Measure	Coverage	Note
LED lighting, including exterior lights	100%	Share of total building area
Efficient air conditioning (VRF, solar chimney ventilation, efficient air handling units)	85%	Share of total building area
Sensors (light, motion, temperature, window, gas emission, fire alarm)	75%	Share of total building area
Shading systems suited to the local climate	70%	As stated by CIU
Thermal roof insulation	95%	All new buildings and more than 60% of older ones
Natural day-lighting in building design	68%	Share of buildings
Double-glazed windows	100%	
Energy Star label equipment	85%	
Average of the eight measures	84.75%	Simple average

Roof insulation and smart buildings

Roofs. During 2024–2025 CIU insulated the roofs of all university buildings except the Teachers' Accommodation, planned for the end of 2025, and says the results show in total energy consumption.

Smart buildings. The smart-building file lists 119,620 m² of smart buildings out of 149,480 m².

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THE IMPACT RANKINGS

FURTHER EVIDENCE • CIU WEBSITE

What CIU's website adds

Ref.	Page	What it states
W1	**Climate Action page** SDG 13	PV supplies "around 30% of the energy requirement of the whole campus" and avoids about 1,500 tonnes of CO_2 a year. With the biogas plant the clean share is stated to reach 100%. Links to the four climate PDFs below.
W2	**Low-carbon energy tracking** 13.2.1 document, 2025-2026	CIU's own tracking document. PV output viewed through SunnyPortal; meter tracking; remote AC project and smart HVAC; EH Building (2024) and new dormitories (2025) equipped; weather station and wind tracker. States roughly one-third of campus energy from PV, almost 30% renewable share, nearly 470 tonnes of CO_2 avoided a year, PV plant completed in 2016.
W3	**Climate Action Plan** 2025-2026	Targets 100% renewable energy; lists the PV plant (1,940,000 kWh in 2022–2023), over 300 solar thermal panels and the planned biogas plant. Names an "Analysis of Energy and Green House Gas Emissions of Cyprus International University" and a Sustainable Campus Action Plan, but gives no results.
W4	**Carbon neutral commitment** 2025	Wind and weather station; free EV charging points linked to the PV panels; free bicycles and shuttle buses; a campus building renovated with energy-saving features every two years. No campus-wide emissions inventory is given.
W5	**Climate programmes** 2025	Lists a programme to apply for energy-auditing studies on buildings and a programme to install PV panels on industrial buildings, with no results or figures.
W6	**News, 26 June 2026** THE Impact Rankings	Reports CIU 22nd worldwide in SDG 7 (Affordable and Clean Energy) and 67th in SDG 13 (Climate Action) in THE's 2026 results.