



University: UzSWLU

Country: Uzbekistan

Web Address: <https://www.uzswlu.uz/en>

[2.8] EC5 Ratio of Renewable Energy Production to Total Energy Usage per Year

This indicator evaluates the proportion of renewable energy generated by UzSWLU relative to its total annual electricity consumption. All energy data are monitored, verified, and analyzed through the Fusion Energy Platform, which integrates data from solar photovoltaic systems, smart meters, and facility energy management systems to ensure accurate reporting and transparency.

Energy Data Summary (2026)

Type	Amount	Source
Solar PV Energy Production (kWh/year)	2,240,000	Fusion Energy Platform
Total Electricity Usage (kWh/year)	7,467,000	Fusion Energy + Power Supply Dept.
Fuel Consumption — Natural Gas (m ³ /year)	14,200	Facility Energy Report
Fuel Consumption — Gasoline (liters/year)	4,820	Transport Department

Calculation of Renewable Energy Share

Renewable Energy Share (%) = (Renewable Energy Production ÷ Total Electricity Consumption) × 100

Renewable Energy Share (%) = (2,240,000 ÷ 7,467,000) × 100 = 29.99% ≈ 30%

Results and Environmental Impact — Key Performance Indicators (2026)

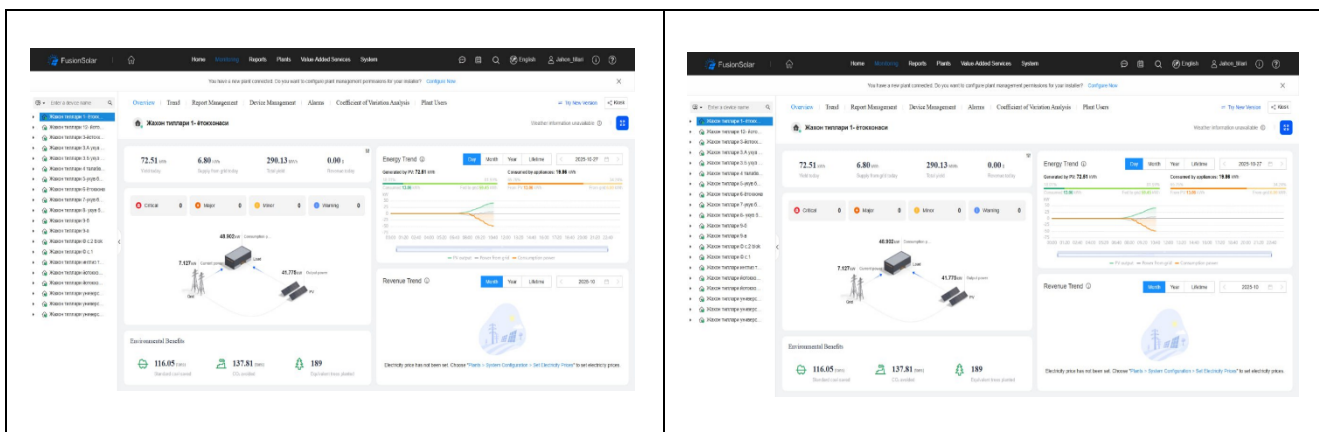
- Renewable energy share: 30% (institutional target for 2028: 40%).
- Annual CO₂ emissions avoided: approximately 68 tons.
- Reduction in fuel consumption: approximately 38% compared with the 2022 baseline.



- Annual financial savings: approximately 1.78 billion UZS.
- Installed solar generation capacity: 2,240 kW.

Technological Integration and Smart Energy Management

To maximize energy efficiency, the university has implemented smart thermostats and automated HVAC controls, LED lighting systems, motion and occupancy sensors, and AI-supported energy optimization tools. Natural gas heating systems remain available only as backup infrastructure during peak demand or emergencies, ensuring a resilient hybrid energy model.



Fusion Energy dashboard





Renewable Energy at UzSWLU

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file

<https://t.me/UzSWLU/9329>

<https://uzswlu.uz/news/quyosh-panellarining-foydasi>

<https://t.me/UzSWLU/9392>

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