



Template for Evidence(s) UI GreenMetric Questionnaire

University : Andijan State Institute of Foreign Languages
Country : Uzbekistan
Web Address : www.adchti.uz

[2] Energy and Climate Change (EC)

[2.5] Renewable Energy Sources in Campus



Example of Biodiesel Combined Cooling Heating and Power Integration Unit



Example of Biomass Pellet Vacuum Boilers Provide Heating for the Building in winter



Example of Roof and Façade Mounted Solar Panels



Example of Roof and Façade Mounted Solar Panels

Description:

Andijan State Institute of Foreign Languages (ASIFL) is progressively integrating renewable energy technologies into its campus infrastructure as part of its long-term sustainability and climate mitigation strategy. The university recognizes the importance of transitioning from conventional fossil-fuel-based energy systems to cleaner, renewable sources to reduce greenhouse gas emissions and operational costs.



1. Solar Photovoltaic (PV) Systems

The primary renewable energy source currently implemented on campus is solar photovoltaic (PV) technology. Solar panels are installed on the rooftops of:

- Administration buildings
- Library facilities
- Academic and laboratory buildings
- Dormitories
- Other teaching and service facilities

The rooftop solar installations contribute directly to electricity generation for institutional use, reducing dependence on the national grid and lowering the institute's carbon footprint. These solar PV systems:

- Convert solar radiation into electrical energy
- Supply part of the daily electricity demand
- Reduce peak load pressure
- Support decentralized clean energy production

The placement of panels on existing building rooftops ensures optimal land use efficiency without additional environmental disturbance.

2. Renewable-Based Heating Support

In addition to solar PV systems, the institute is exploring and partially implementing renewable-supported heating solutions during the winter season. Renewable energy technologies such as biomass-based systems and geothermal-assisted heating are being considered and gradually integrated where feasible. Renewable heating technologies provide:

- Reduced reliance on conventional fuel sources
- Lower carbon emissions during winter heating
- Improved energy efficiency
- More sustainable seasonal energy management

These systems align with international ultra-low emission standards through proper filtration and environmental control mechanisms where applicable.

Renewable Energy Production

No.	Renewable energy source	Energy produced per year (kWh)	Remarks
1	Solar Power	25,000	Electricity generated by rooftop solar photovoltaic (PV) panels
2	Clean Biomass	15,000	Renewable-based heating support during winter season
	Total renewable energy produced	40,000	

Based on the available institutional estimate, the total annual renewable energy production is 40,000 kWh, consisting of solar power and clean biomass/renewable-based heating support.

Environmental and Climate Impact

The integration of renewable energy sources contributes to:

- Reduction in greenhouse gas emissions
- Lower electricity procurement from fossil-based sources
- Increased institutional energy independence
- Long-term financial savings
- Environmental awareness among students and staff

By diversifying its energy portfolio with solar and renewable heating systems, ASIFL strengthens its climate resilience and sustainable infrastructure development.

Contribution to Sustainable Development Goals (SDGs)



The institute's renewable energy initiatives directly support several United Nations Sustainable Development Goals:

SDG 7 – Affordable and Clean Energy

Through rooftop solar PV installations, the institute promotes access to clean and renewable energy within the campus community.

SDG 9 – Industry, Innovation and Infrastructure

The implementation of renewable technologies demonstrates sustainable campus infrastructure modernization and innovation in energy systems.

SDG 11 – Sustainable Cities and Communities

By reducing reliance on fossil fuels and integrating renewable energy into urban educational infrastructure, the university contributes to sustainable urban development in Andijan.

SDG 12 – Responsible Consumption and Production

The shift toward renewable sources reflects responsible institutional resource management and sustainable energy consumption patterns.

SDG 13 – Climate Action

Renewable energy implementation reduces institutional carbon emissions and supports national and global climate mitigation efforts.

SDG 4 – Quality Education

The campus serves as a living laboratory for sustainability, fostering environmental responsibility and climate awareness among students and staff.

Future Development Plan

The institute plans to:

- Expand rooftop solar capacity
- Introduce energy storage systems
- Increase the share of renewable-based heating
- Integrate smart energy monitoring technologies
- Develop student-led sustainability research initiatives

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

<https://green-institute.adchti.uz/>

<https://green-institute.adchti.uz/#energy>