



THE GLOBAL GOALS



UZBEKISTAN STATE UNIVERSITY
OF WORLD LANGUAGES

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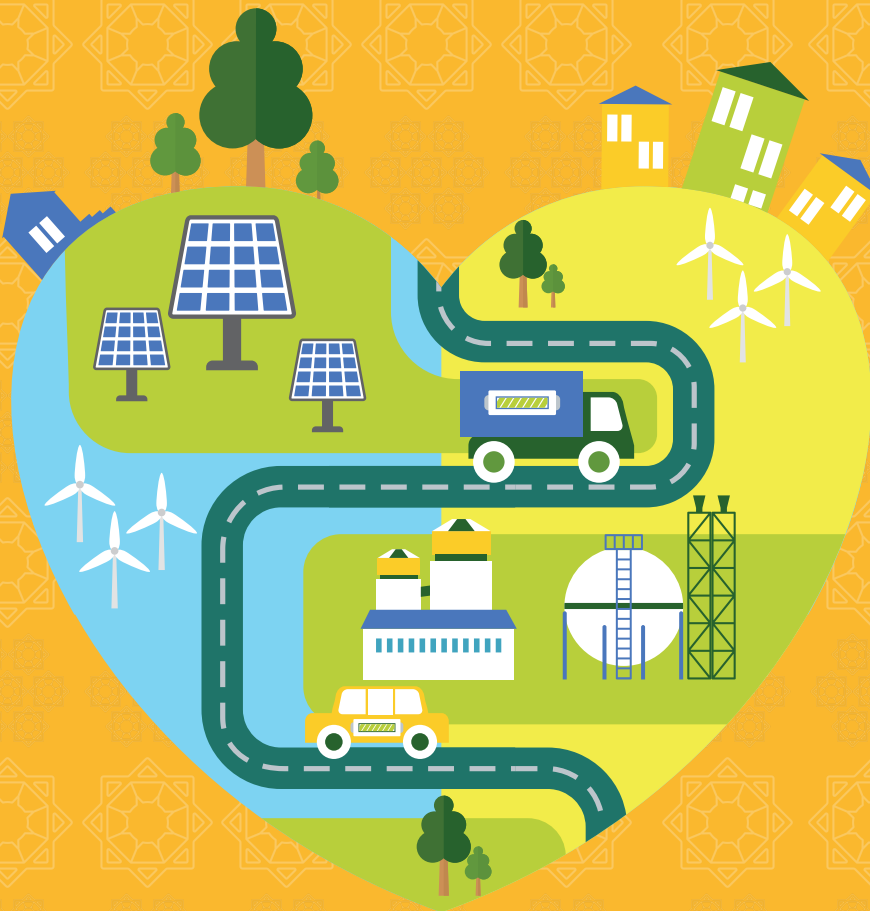
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UZBEKISTAN STATE WORLD
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7 AFFORDABLE AND CLEAN ENERGY



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Developing Sustainable Energy Sources at UzSWLU

Uzbekistan State World Languages University (UzSWLU) has implemented a policy that ensures all renovations and new constructions adhere to energy efficiency standards. In accordance with the university's "**Environmental Policy**," all construction and renovation projects are conducted with a strong emphasis on sustainable practices and energy efficiency. This policy is outlined in the official document available on the university's website.

Energy Efficiency Standards Compliance:

UzSWLU's policy includes compliance with both national standards and international guidelines for energy efficiency, prioritizing sustainable materials, efficient energy use, and reduced emissions. By following these standards, the university is committed to reducing its environmental footprint and contributing to sustainable campus development.

Key Principles of the Policy:

1. **Sustainable Construction:** Prioritizing eco-friendly and durable materials.
2. **Energy Efficiency:** Ensuring that all new buildings and renovations meet high energy efficiency standards to reduce overall energy consumption.
3. **Environmental Responsibility:** Incorporating design elements that support natural lighting, ventilation, and the conservation of water resources.

Through these initiatives, UzSWLU demonstrates its dedication to environmental sustainability and responsible energy use as part of its long-term strategic goals.

For more detailed information, the official policy document can be accessed [here](#).



Plan for Upgrading Existing Buildings to Higher Energy Efficiency Policy

Uzbekistan State World Languages University (UZSWLU) is advancing its commitment to energy efficiency in alignment with green building principles. This initiative emphasizes the importance of energy conservation and management, aiming to establish a culture of energy saving across the campus. By transitioning from conventional to energy-efficient appliances, UZSWLU sets a benchmark in sustainable campus operations.

Sustainability Goal

The target is to establish a sustainable university environment that relies on clean and affordable energy by 2030, in alignment with United Nations Sustainable Development Goal-7 (UN SDG-7). The university aims to achieve 100% utilization of energy-efficient appliances by 2030, marking a significant milestone in its sustainability agenda.

Energy Consumption Program

UZSWLU's energy program is divided into two core areas:

1. **Awareness Campaign:** Aimed at educating students, staff, and the broader community on energy conservation, climate change, and global warming. Campaigns include posters, conferences, and social media to raise awareness and promote energy-saving practices.
2. **Technical Industrial Applications:** Provides students with hands-on projects in collaboration with entities such as the Ministry of Energy of Uzbekistan. These projects enrich the academic experience and contribute to energy management solutions on campus.

The article discusses the growing emphasis on solar energy in Uzbekistan, highlighting the installation of solar panels at the State University of World Languages. It outlines recent contracts for solar photovoltaic systems, including a 180 kW plant commissioned in 2023. The university has produced significant electricity through these panels, covering 17% of its monthly energy needs, and plans to expand its solar capacity further in 2023. For more details, you can read the full article here.



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Energy Management Enhancements

UzSWLU is also working on several initiatives to advance its energy savings:

- Installation of solar panels across campus buildings for renewable energy sources.
- Integration of a wind turbine in designated laboratory areas.
- Water conservation through efficient use and rainwater harvesting.
- Expansion of green areas on campus to improve air quality and create a healthier environment.
- Use of energy-efficient split units in alignment with Uzbekistan's climate needs.



No.	Name	Place	Automati on	Safety			Energy			Water			Indoor environ ment			Lighting			Building Area (m ²) Бино (m ²)
				B	B	S	S	S	E	E	E	A	A	A	I	I	I	L	
1	UzSWLU, Main Campus	Tashkent, Uzbekistan, Kichik G9,21a xalka	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Campus area: 52000 sq.m Green area: 15123 sq.m
2	UzSWLU, faculty of international journalism	Tashkent, Uzbekistan, Latify,8	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Campus area: 14000 sq.m Green area: 3100 sq.m	
3	UzSWLU, faculty of Russian philology	Tashkent, Uzbekistan, Mukimi, 104	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Campus area: 5000 sq.m Green area: 1507 sq.m	
4	UzSWLU, faculty of English philology	Tashkent, Uzbekistan, Zaskoyat, 4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Campus area: 52000 sq.m Green area: 15123 sq.m	
Total																		Total number of campuses: 4 Total area: 166000 sq.m Total building area: 128000sq.m Total number of buildings: 16 Total green area: 36830 sq.m	

Total number of campuses: 4
 Total area: 166000 sq.m
 Total building area: 128000sq.m
 Total number of buildings: 16
 Total green area: 36830 sq.m
 Smart building implementation

$\frac{128,000m^2}{166,000m^2} \times 100\% = 77.1\%$

Appliance Usage Over the Years

Year	Appliance	Total	Energy Efficient	Percentage
2021	Indoor lighting	4000	3600	90%
2021	Air conditioners	300	200	67%
2021	Computers	700	500	71%
2022	Indoor lighting	6000	5700	95%
2022	Air conditioners	500	450	90%
2022	Computers	800	640	80%
2023	Indoor lighting	10000	9800	98%
2023	Air conditioners	800	760	95%
2023	Computers	1000	850	85%

Sustainable Infrastructure

Key implementations include:

1. Solar panels for renewable energy supply to buildings.
2. Wind turbine applications for mobile charging and ventilation.
3. Conservation of water resources with rainwater harvesting systems.
4. Improved insulation and the use of LED lighting to reduce energy demand.
5. Natural lighting through skylights to cut down on artificial lighting needs.
6. Future development of a green roof to serve as thermal insulation and enhance air quality.

By 2030, UzSWLU aims to fully transition to sustainable energy solutions, contributing to Uzbekistan's national energy goals and the global SDGs.



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Developing Sustainable Energy Sources at UzSWLU

Uzbekistan State University of World Languages (UzSWLU) has implemented a comprehensive energy efficiency plan as part of its broader sustainability initiatives to reduce overall energy consumption. This plan outlines specific strategies and actions the university will take to optimize energy use, minimize waste, and lower its environmental impact. The following steps highlight the energy efficiency plan at UzSWLU:

1. **Comprehensive Energy Efficiency Plan:** UzSWLU has developed a strategic roadmap to systematically reduce overall energy consumption across its campuses and facilities.
2. **Commitment to Sustainability:** The university's administration has established an energy efficiency plan to curb energy waste, enhance building systems, and foster a culture of energy conservation among students and staff.
3. **Multi-Year Implementation:** The university has implemented a multi-year energy efficiency plan that involves retrofitting existing buildings, adopting energy-saving technologies, and integrating renewable energy sources to achieve significant reductions in energy consumption.
4. **Framework for Continuous Improvement:** UzSWLU's energy efficiency plan serves as a guiding framework for consistently evaluating and upgrading infrastructure, utilizing energy-efficient equipment, and implementing behavior-focused initiatives to achieve measurable reductions in energy usage.
5. **Sustainable Operations Vision:** The energy efficiency plan outlines specific targets for energy reduction, sets milestones for implementation, and establishes a cycle of monitoring and adjustment to ensure continuous improvement.
6. **Dedication to Responsible Resource Management:** By adhering to its energy efficiency plan, the university demonstrates its commitment to responsible resource management, cost savings, and environmental preservation, serving as a model for sustainable practices in higher education institutions.

University Energy Efficiency Plan Milestones (2022-2030)

Objective: Develop and implement a comprehensive energy efficiency plan to significantly reduce overall energy consumption across the university's campuses and facilities, aligning with the institution's commitment to sustainability and environmental responsibility.

2022-2023: Establishing the Foundation

- Conduct a comprehensive energy audit of all university buildings to assess current energy consumption and identify areas for improvement.
- Form an interdisciplinary energy efficiency task force comprising faculty, staff, and students to collaborate on plan development and implementation.
- Research and benchmark best practices from other universities renowned for successful energy efficiency initiatives.
- Set a clear baseline measurement for energy consumption across campuses.

2024-2025: Developing the Strategy

- Analyze audit findings and task force recommendations to formulate a detailed energy efficiency strategy aligned with the university's sustainability goals.
- Identify key performance indicators (KPIs) and specific energy reduction targets for the upcoming years.
- Prioritize building retrofits, technology upgrades, and behavior-focused campaigns based on potential energy savings and feasibility.

2026-2027: Implementation and Infrastructure Upgrades

- Initiate pilot projects to test and refine energy-saving technologies, such as smart building systems, efficient lighting, and renewable energy installations.
- Begin phased retrofitting of older buildings with updated insulation, windows, and HVAC systems.
- Launch awareness campaigns to educate students, faculty, and staff about energy-efficient practices and their role in achieving the university's goals.



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Developing Sustainable Energy Sources at UzSWLU

2028-2029: Scaling Up and Integration

- Expand the implementation of successful pilot projects to cover a broader range of campus buildings and facilities.
- Collaborate with local energy providers to explore opportunities for integrating renewable energy sources into the university's energy mix.
- Establish a real-time energy monitoring and management system to track consumption patterns and identify deviations from targets.

2030: Achieving Sustainability Milestones

- Reach the mid-term energy reduction targets established in the energy efficiency plan.
- Celebrate the completion of major retrofitting projects that have significantly improved the energy performance of key university buildings.
- Showcase the university's achievements and progress at sustainability symposiums and conferences.
- Commence preparations for the next phase of the energy efficiency plan, focusing on continued innovation and long-term sustainability. Throughout this timeline, regular progress assessments and adjustments will be made to ensure that the university remains on track to meet its energy reduction goals. It is also important to maintain open communication with stakeholders and seek opportunities for collaboration with external partners and experts in the field of energy efficiency.

Key Success Indicators

1. Percentage reduction in overall energy consumption across all university buildings.
2. Number of energy-efficient technologies and practices integrated into building systems.
3. Increased awareness and engagement of students, faculty, and staff in energy conservation efforts.
4. Cost savings achieved through reduced energy consumption and operational efficiencies.
5. Recognition and awards received for sustainable practices and energy reduction accomplishments.

Examples of Energy Efficiency Initiatives at UzSWLU

1. **Solar Heating System:** UzSWLU is planning to implement a solar heating system on the roof of the university's library to harness solar energy, particularly during the winter season, significantly reducing electricity consumption and lowering utility bills.
2. **Renewable Energy Projects:** Several renewable energy projects have been undertaken, including the development of solar evacuated tube collectors and solar dish collectors with solar tracking systems to enhance efficiency in water heating.
3. **Rooftop Solar Panels:** Solar panels have been installed on the administration buildings and the main cafeteria to enhance energy savings and contribute to sustainable energy practices.
4. **Green Social Spaces:** Solar panels have been installed in green areas, commonly used by students for social activities, to provide renewable energy for charging devices.
5. **Wind Generators:** Horizontal-axis wind generators have been installed for lighting purposes, providing sustainable energy solutions while creating employment opportunities within the community.

Our university conducts regular energy reviews as part of our commitment to sustainability and energy efficiency. These reviews are essential for identifying areas where energy wastage is highest, allowing us to implement targeted strategies for improvement.

Key Aspects of Our Energy Review Process:

- **Comprehensive Audits:** We perform comprehensive energy audits of campus buildings and facilities to assess energy consumption patterns and pinpoint inefficiencies.
- **Data Analysis:** Utilizing energy management software, we analyze data collected from utility bills, smart meters, and occupancy patterns to identify trends and anomalies in energy usage.
- **Specific Metrics and Targets:** We track metrics like energy consumption per square foot and have set a target to reduce overall energy use by 15% over the next five years.
- **Technology Utilization:** We use advanced technologies during our audits, such as infrared cameras for thermal imaging and energy management systems.



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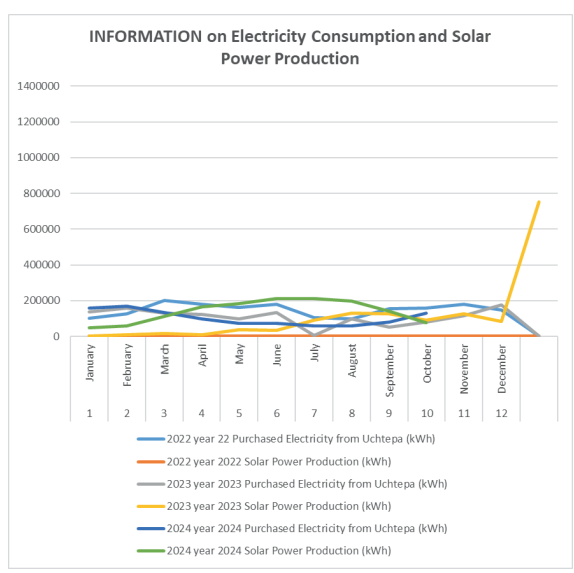
Developing Sustainable Energy Sources at UzSWLU

- **Collaboration with Stakeholders:** Our energy management team collaborates with faculty, staff, and students to gather insights and suggestions for reducing energy consumption.
- **Past Success Stories:** Initiatives such as the installation of LED lighting across campus have led to a 20% reduction in energy consumption in those areas.
- **Educational Programs:** We run educational programs and workshops to engage students and staff in sustainable practices.
- **Future Green Initiatives:** Future plans include establishing a green roof and implementing a rainwater harvesting system to further enhance sustainability efforts.
- **Partnerships and Certifications:** We are pursuing LEED certification for new buildings and actively seek partnerships with local organizations to enhance our sustainability efforts.
- **Community Engagement:** Our energy reviews also involve outreach programs and collaborations with local businesses to promote energy efficiency.

In summary, our university recognizes the importance of energy reviews in minimizing wastage and maximizing efficiency, contributing to a more sustainable campus and reducing our environmental impact.

INFORMATION on Electricity Consumption and Solar Power Production at UzSWLU Facilities

No	Month	2022 Purchased Electricity from Uchtepa (kWh)	2022 Solar Power Production (kWh)	2023 Purchased Electricity from Uchtepa (kWh)	2023 Solar Power Production (kWh)	2024 Purchased Electricity from Uchtepa (kWh)	2024 Solar Power Production (kWh)
1	January	101,600	0	137,960	3,000	157,440	48,200
2	February	126,381	0	157,120	8,000	168,840	58,400
3	March	199,179	0	129,240	15,000	132,480	110,900
4	April	177,760	0	121,600	10,000	98,840	164,800
5	May	160,520	0	99,160	36,000	72,222	183,700
6	June	179,240	0	133,160	34,000	71,840	210,700
7	July	104,120	0	4,111	90,000	60,000	210,500
8	August	96,200	0	97,769	129,000	56,760	196,800
9	September	154,120	0	51,000	127,000	78,150	140,000
10	October	158,000	0	80,360	90,000	128,440	(74,600)
11	November	179,960	0	116,960	127,000		
12	December	146,360	0	176,472	83,000		



****Total****

- 2022: 1,783,440 kWh purchased, 0 kWh solar power produced.
- 2023: 1,304,912 kWh purchased, 752,000 kWh solar power produced.
- 2024: 1,025,012 kWh purchased, 1,324,000 kWh solar power produced.

Chief Energy Engineer: R. Nazarov

At the Uzbekistan State University of World Languages (UzSWLU), electricity plays a crucial role in supporting daily operations, including lighting, cooling, heating, and powering laboratory equipment. Data from 2022 to 2024 indicate a trend of increasing electrical energy demand, particularly between 2023 and 2024. This rise can be attributed to the growing number of students enrolled at the university, resulting in greater utilization of facilities such as laboratories and classrooms.

The data presented highlights energy consumption metrics across various months, showing notable fluctuations influenced by seasonal variations and changes in campus activities. For instance, there was a significant increase in electricity consumption from May to August 2024, attributed to increased campus activities and the reopening of physical classes. However, a reduction in electricity usage was observed in October 2024, possibly due to the spring break hiatus and reduced on-campus activities.

Developing Sustainable Energy Sources at UzSWLU


In 2022, the university's energy consumption was relatively stable, with some fluctuations due to academic schedules. Solar power production remained non-existent during 2022, but significant improvements were made in 2023, where solar power production reached 752,000 kWh, which contributed to reduced reliance on purchased electricity. By 2024, solar power production increased further to 1,324,000 kWh, making a considerable impact in offsetting energy demands.

Energy consumption peaked in July 2024, with both purchased electricity and solar power production reaching high values, driven by the peak academic workload and on-campus activities during that period. The university's transition towards renewable energy sources, specifically through increased solar power production, demonstrates a proactive approach to managing energy consumption sustainably.

In conclusion, although there were fluctuations in energy consumption, the increasing integration of solar power has significantly contributed to reducing the overall dependence on purchased electricity. As the university continues to grow and accommodate more students, implementing additional energy-efficient solutions, such as expanding solar energy initiatives and optimizing energy usage in buildings, will be essential. The continued integration of renewable energy sources and energy-saving technologies is recommended to meet rising energy demands while promoting sustainability on campus.

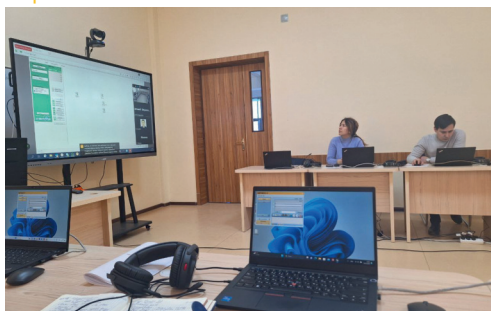
Uzbekistan State University of World Languages: Energy Efficiency and Clean Energy Programs

The Uzbekistan State World Languages University implements various programs aimed at educating the local community about energy efficiency and clean energy. These initiatives reflect the university's commitment to sharing its knowledge and experience with the community, promoting energy conservation, and finding solutions to environmental challenges.

 **Educational Programs and Workshops:** UzSWLU organizes seminars and training sessions for the local community focused on energy efficiency and clean energy. These events cover topics such as how to use energy resources efficiently and how to apply alternative energy sources (such as solar and wind energy).

Online Courses: The university also offers online education platforms that provide courses on energy efficiency and clean energy issues. This format allows for convenient access, enabling community members to gain knowledge in these areas at their own pace.

Local Collaborations: UzSWLU collaborates with local communities, government agencies, and non-governmental organizations. Through these partnerships, research on energy efficiency is conducted, practical projects are developed, and educational programs for the community are implemented.





Developing Sustainable Energy Sources at UzSWLU

Youth Education: The university places special emphasis on educating young people about energy efficiency and clean energy topics. Specific programs and projects for youth are organized, aimed at preparing future professionals in this field.

Environmental Initiatives: UzSWLU conducts various events to promote the use of environmentally friendly energy sources. These initiatives are designed to raise community awareness about energy issues and propose viable solutions.



Public Commitment to 100% Renewable Energy at Uzbekistan State World Languages University

Uzbekistan State World Languages University actively promotes the importance of transitioning to 100% renewable energy through various initiatives and public engagements. The university recognizes the critical need for sustainable energy solutions to combat climate change and is committed to fostering a culture of sustainability both within its campus and in the wider community. Here are some key efforts made by UzSWLU in this regard:

- **Public Pledges and Petitions:** UzSWLU encourages students, faculty, and staff to participate in public pledges supporting 100% renewable energy. The university facilitates the signing of petitions that advocate for policies promoting renewable energy sources at local and national levels, demonstrating a collective commitment to sustainable practices.
- **Community Meetings and Discussions:** The university organizes community forums and discussions focused on renewable energy topics. These events aim to raise awareness about the benefits of renewable energy and to engage the public in conversations about energy policy, sustainability, and the future of energy use in Uzbekistan.

Awareness Campaigns: UzSWLU conducts awareness campaigns that inform the local community about the importance of renewable energy. These campaigns may include workshops, lectures, and outreach programs that emphasize the need for a transition to clean energy sources and the role individuals and communities can play in this effort.



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- **Collaborations with Local Organizations:** The university collaborates with local NGOs, governmental bodies, and environmental organizations to promote renewable energy initiatives. By partnering with these organizations, UzSWLU amplifies its outreach and encourages collective action toward achieving a sustainable energy future.
- **Hosting Events:** UzSWLU hosts various events, such as seminars, conferences, and energy fairs, focused on renewable energy technologies and practices. These events serve as platforms for knowledge sharing, showcasing innovations in renewable energy, and inspiring attendees to commit to sustainable energy practices.



- **Student Initiatives:** The university supports student-led initiatives aimed at promoting renewable energy. Students are encouraged to create projects and campaigns that align with the university's sustainability goals, fostering a sense of responsibility and activism among the younger generation. Through these efforts, Uzbekistan State World Languages University demonstrates its commitment to promoting renewable energy and engaging the community in meaningful discussions and actions toward a sustainable future. By fostering public awareness and participation, UzSWLU aims to contribute to the global movement toward 100% renewable energy and a more sustainable planet.



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