



**SAMARKAND STATE UNIVERSITY NAMED AFTER SHAROF RASHIDOV
(SAMDU)**

**SUSTAINABLE DEVELOPMENT GOAL 07
(SDG 7)**

**7 AFFORDABLE AND
CLEAN ENERGY**



Assuring affordable and sustainable energy access is Goal 7's main objective, as it is essential to the growth of business, communications, agriculture, healthcare, education, and transportation. A variety of energy sources, including solar, wind, hydropower, geothermal, biofuels, natural gas, coal, petroleum, and uranium, are available from the environment. If greenhouse gas emissions are not reduced through increased usage of fossil fuels, there will be consequences for global climate change. Reducing the risk of disaster and mitigating climate change are facilitated by the usage of renewable energy sources and energy efficiency. Ecosystem preservation and upkeep enable the use of and advancement in hydropower sources for biofuel and electricity production.

Samarkand State University is dedicated to generating more clean and affordable energy by replacing fossil fuel energy. For this purpose, we designed our policy to motivate our energy requirements from non-renewable energy sources to renewable energy sources. In addition, we implemented the idea in 2021 by installing photovoltaic panels on the roofs of buildings to generate solar energy.

Metrics

7.2.1 - Does your university as a body have a policy in place for ensuring all renovations / new builds are following energy efficiency standards? (relevant standards to be indicated)

Samarkand State University named after Sharof Rashidov favors the implementation of energy efficiency standards to reduce energy usage. We believe that clean and green energy is the prerequisite to slow down climate change, especially carbon emissions into the atmosphere. We implement our policy of energy-efficient renovations and constructions through Shukurov Shavkat Shukurovich, Vice-rector of Construction and Renovations. Our renovation and construction policy provides them with legal, technical, and ethical standards for constructing and renovating buildings.

The construction and renovation standards are also aligned to the Government of Uzbekistan and amended time to time in order to construct new buildings for high energy efficiency. The construction standards and regulations amended by the government of Uzbekistan (QMQ.2.01.04.18) to provide necessary legislative support to establish a sustainable procedures and protocols in construction methods. These high energy efficiency construction and renovation standards are applied to all including higher education institutions.

Therefore, Samarkand State University prioritizes and reviews its standards and regulations time to time in the frame of national standards and also we learn from our practices and international standards.

Our approach is to improve the energy performance of buildings, considered as utmost priority. It is an important task to control energy usage, air pollution, and carbon emissions. Our vision of reducing carbon emissions clearly reflects in our construction and renovation practices.

https://www.samdu.uz/upload/content-files/Samarkand_State_University_named_after_Sharof_Rashidov_Sustainable.pdf

The construction and renovation standards policy is available: [22.02.2021. Urban Planning Code of the Republic of Uzbekistan](#)



7.2.2 - Does your university as a body have plans to upgrade existing buildings to higher energy efficiency?

Samarkand State University, named after Sharof Rashidov, stands as one of Central Asia's oldest institutions, with its historic buildings celebrated for their cultural and architectural heritage. Recognizing the need to both preserve and modernize these structures, the university launched a comprehensive renovation and upgrade plan several years ago. This initiative involved thorough inspections, assessments, and upgrades to selected buildings, which included installing modern electrical systems, updating sanitary facilities, adding modular kitchens where appropriate, implementing energy-efficient lighting, and making other essential improvements.

Our renovation plans are based on few fundamental approaches.

1. **Building Upgradation**
2. **Efficient Lighting Solutions**
3. **Renewable Energy Integration**
4. **Smart Building Technology**
5. **Improved Water and Waste Management**

The building renovation strategies and policies are implemented by installing energy-efficient systems, such as improved insulation, energy-saving windows, high energy-efficient LED, and motion sensors to regulate the energy systems.

Further, most of the buildings have been installed with solar panels to provide renewable energy solutions. Further, monitoring and control usage devices have been implemented to optimize heating, cooling, and lighting. The water and waste management system also implemented to prevent waste and better management of the buildings.





7.2.3 - Does your university as a body have a process for carbon management and reducing carbon dioxide emissions?

Samarkand State University named after Sharof Rashidov is determined to implement its core principles of sustainability to reduce carbon emissions and also determined to become a carbon-neutral university. For this purpose, we are taking certain measures at university.

1. Planting more trees and vegetation within the campus.
2. Reducing energy demand continuously up to an optimum level.
3. Installing energy-efficient appliances and equipment in all buildings.
4. Sensor-based lighting for optimizing the need for light.
5. Implementing green building programs to turn them into energy-efficient ones.
6. Consistently creating awareness among the university community to prevent misuse or overuse.
7. Restricting vehicles up to a certain limit by installing electronic barriers.
8. Conducting research on carbon reduction technologies.
9. Integrating the importance of carbon emission and its reduction into our curriculum.
10. The university has a dedicated team that works on designing, making strategies, and implementation at all levels.
11. Incorporated carbon offsetting and reduction in our curriculum and syllabus for awareness.
12. Community outreach and educational events

The sustainability report is available on:

https://www.samdu.uz/upload/content-files/Samarkand_State_University_named_after_Sharof_Rashidov_Sustainable.pdf

7.2.4 - Does your university as a body have an energy efficiency plan in place to reduce overall energy consumption?

To implement an energy efficiency plan, the Vice-Rector for Construction and Renovation, along with their team, is responsible for conducting inspections, ongoing monitoring, and strategic planning to uphold and integrate the university's core sustainability principles. This team works to achieve the university's annual energy efficiency targets through structured oversight and practical actions.

The energy efficiency plan is based on the following core strategies.

1. The university authorized a team to audit and monitor energy usage and real-time monitoring to understand the pattern.
2. The old buildings are repaired and renovated by installing modern energy-efficient equipment and other accessories.
3. Photovoltaic panels have been installed on the roofs of main buildings across the university to provide an alternative energy source. It also helps in reducing carbon footprint.
4. The university drives student engagement campaigns to minimize electricity usage by asking them to switch off the lights and other equipment when they are idle.
5. The university also publishes an annual report to communicate our sustainability targets and achievements.

The sustainability report is available at.

https://www.samdu.uz/upload/content-files/Samarkand_State_University_named_after_Sharof_Rashidov_Sustainable.pdf

7.2.5 - Does your university as a body undergo energy reviews to identify areas where energy wastage is highest?

Samarkand State University conducts regular energy reviews to identify the areas of high energy use. Under the leadership of Mr. A. Qurdoshev (Head of the Energy Department), the review of energy usage is based on a structured approach.

1. Regular audits to estimate energy performance in different university facilities, including classrooms, labs, libraries, administrative buildings, and hostels.
2. Energy monitoring systems have been installed to collect real-time data of energy usage to estimate the efficiency of instruments and high consumption areas.
3. Energy usage benchmarks have been determined for departments and buildings to pinpoint the disparities and address the areas of high energy consumption.
4. Review the performance of energy-using appliances and air-conditioning systems to determine the current efficiency levels.
5. Identification and replacement of outdated instruments and lighting accessories.

These reviews are documented in the annual reports of the university.

<https://www.samdu.uz/upload/content-files/Samarkand State University named after Sharof Rashidov Sustainable.pdf>

7.4.1 - Does your university as a body provide programmes for local community to learn about the importance of energy efficiency and clean energy?

Samarkand State University named after Sharof Rashidov atmospheres its responsibilities to the surrounding community. We believe that efficient use of energy is the responsibility of all people not only the university community to prevent misuse and overuse of energy in all spheres. Therefore, our teaching staff teaches at Mahallas about varied topics of world and international importance including energy, food, and climate.

To engage the local community in sustainable practices, the university organizes various events highlighting the importance of energy efficiency and clean energy. Recently, a community event was held to discuss the benefits of installing solar panels for clean energy generation. It was also emphasized that higher education institutions should lead by example by installing photovoltaic systems to inspire and encourage the community to adopt similar solutions.



<https://www.samdu.uz/en/news/40236>

7.4.2 - Does your university as a body promote a public pledge toward 100% renewable energy (petitions, meetings, discussions, events) beyond the university?

Samarkand State University named after Sharof Rashidov promotes energy efficiency and also creates awareness among people about renewable energy. For this purpose, we pledge at all faculties and departments for minimum use of energy.

Pledge is as follows:

I solemnly pledge that I will use electricity responsibly in my classroom, staff room, workspaces, and home by opting following steps:

1. Turning off all lights and electronic gadgets, if no need to use them.
2. Installing more efficient compact fluorescent lights.
3. Turning off my computer before leaving my office.
4. Turning off all unnecessary lights during the day when sunlight is optimum.
5. Will use the washing machine and other equipment when needed most.

I also pledge that I will help in creating awareness about the importance of effective use of energy. This pledge is provided in three languages to all departments, faculties, and administrative buildings.

Further, the University promotes the importance of energy to all nearby people through our teaching staff. They go to many mahallas as per their appointment. At the Samarkand State University named Sharof Rashidov, we act professionally and consistently to achieve our targets.



7.4.4 - Does your university as a body inform and support government in clean energy and energy-efficient technology policy development?

Samarkand State University and its experts are closely associated with the local, regional, and national government for developing a clean energy and energy-efficient technology. Our professors do many local, regional, and national government sponsored project for different aspects of clean energy. Further, Professor R.I. Kholmuradov, Rector of Samarkand State University participates in developmental activities and implementation of efficient energy technology at the government level. Further, the university extended the renewal energy capacities from 20000 Kwh to 60000 Kwh in one year.

Our focus areas are:

1. Research and Innovation
2. Facilitating expertise and partnerships
3. Innovative demonstrations at exhibitions and events
4. Education and community outreach

This collaborative approach helps translate academic research into actionable policies, driving forward a transition to more sustainable, energy-efficient practices at a governmental level. University specifically engages in these activities, it could be through similar initiatives that bridge academia and public policy.





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