

## UI GreenMetric Questionnaire

University : Baku State University  
Country : Azerbaijan  
Web Address : <http://bsu.edu.az/>  
SDG focused Web Adress: <https://sdg.bsu.edu.az/>

### [2] Energy and Climate Change (EC)

#### [2.10] Greenhouse gas emission reduction program (EC.7)



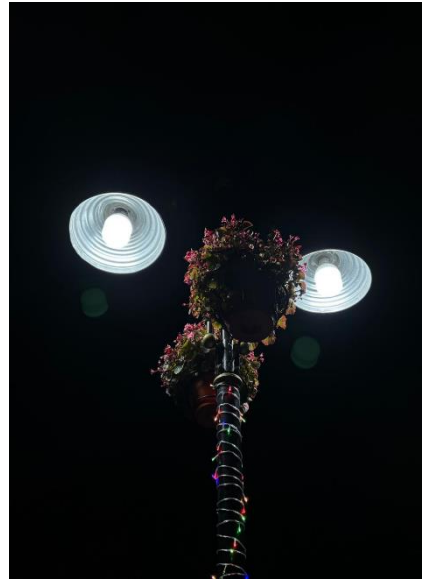


1. Charge parking (Baku State University, Azerbaijan)



2. Renewable energy (Baku State University, Azerbaijan)





3. Daylight-saving bulbs (Baku State University, Azerbaijan)



Hybrid car





Evergreen trees

### **Description:**

Baku State University (BSU) has identified the reduction of greenhouse gas emissions as a key priority within its sustainable development strategy and has implemented a comprehensive and systematic set of measures in this area. The university actively promotes the minimization of carbon emissions, enhancement of energy efficiency, and expansion of renewable energy use through the implementation of innovative projects. One of the major initiatives in this regard is the establishment of the Eco Energy Station on campus, which operates on solar and wind energy. This station provides environmentally friendly charging for electric vehicles while promoting the principles of green energy and the green economy, contributing to the reduction of the university's carbon footprint and supporting the achievement of the United Nations Sustainable Development Goals.

The installation of solar panels across the university campus has significantly expanded the use of renewable energy in electricity generation. Through these systems, BSU reduces its dependence on the national grid, optimizes energy costs, and lowers greenhouse gas emissions. At the same time, these technologies create a practical learning environment for students and researchers, enabling them to develop knowledge and skills in renewable energy and its real-world applications.

The greenhouse gas emission reduction program at BSU is not limited to energy production but also encompasses energy efficiency measures. LED lighting systems are widely implemented across university buildings, motion-sensor lighting technologies are utilized, and the use of energy-efficient equipment is actively encouraged. This approach leads to reduced energy consumption and consequently lower carbon emissions. In parallel, the university promotes sustainable transportation by developing infrastructure for electric vehicle charging and encouraging the use of low-emission transport options.

Educational and research activities are also fully integrated into this process. Topics such as renewable energy, climate change, and environmental sustainability are incorporated into academic curricula, while opportunities for the practical application of theoretical knowledge are expanded. Scientific research conducted at the university contributes to the development of innovative approaches to environmental protection and climate change mitigation.

In addition, measures for efficient resource management are being implemented. These include the adoption of water-saving technologies, the development of waste management and recycling systems, and the monitoring of environmental performance indicators, all of which contribute to reducing the university's overall environmental footprint. These efforts are fully aligned with the "Azerbaijan 2030: National Priorities for Socio-Economic Development," approved by President Ilham Aliyev on February 2, 2021, where "A Clean Environment and a Green Growth Country" is defined as one of the key national priorities.

In conclusion, the integrated and comprehensive measures implemented at Baku State University make a significant contribution to reducing greenhouse gas emissions, improving energy efficiency, and ensuring



environmental sustainability. This approach positions the university as a model green campus at both national and international levels and serves as a best practice example for other higher education institutions.

Baku State University implements a comprehensive Greenhouse Gas (GHG) Emission Reduction Program designed to systematically address and reduce emissions across Scope 1, Scope 2, and Scope 3 in alignment with international sustainability standards and climate action commitments (SDG 13: Climate Action).

The program adopts a whole-institution approach, integrating energy management, sustainable procurement, mobility transformation, and behavioral change initiatives across campus operations.

**Scope 1 – Direct Emissions**

The university targets direct emissions from on-site fuel combustion and owned assets, including heating systems and university vehicles. Key measures include:

- Gradual replacement of fossil fuel-based heating systems with energy-efficient and low-carbon alternatives
- Optimization of building energy systems through improved controls and maintenance
- Transition to low-emission or electric vehicles within the university fleet

**Scope 2 – Indirect Energy Emissions**

Scope 2 emissions from purchased electricity are addressed through:

- Increased integration of renewable energy sources (e.g., solar installations and on-campus generation systems)
- Energy efficiency upgrades in lighting, HVAC systems, and building infrastructure
- Smart energy monitoring and sub-metering to reduce unnecessary consumption
- Procurement of cleaner energy where available

**Scope 3 – Other Indirect Emissions**

Recognizing that Scope 3 represents the largest share of institutional emissions, the university implements measures such as:

- Sustainable mobility initiatives, including promotion of public transport, cycling, and reduced private car use
  - Digitalization of administrative and academic processes to reduce paper and travel-related emissions
  - Sustainable procurement policies prioritizing low-carbon suppliers and services
  - Waste reduction, recycling, and circular economy practices across campus
  - Engagement of staff and students in climate awareness and behavioral change campaigns
- Monitoring and Continuous Improvement

The program includes annual GHG inventory assessments, benchmarking against international frameworks, and continuous improvement cycles. Emissions data is used to guide strategic decision-making and track progress toward long-term carbon reduction targets.

<i>Scope</i>	<i>Emission Source</i>	<i>Key Reduction Measures</i>	<i>Expected Impact</i>
<b>Scope 1 – Direct emissions</b>	On-site fuel combustion (heating systems, boilers) and university-owned vehicles	- Replacement of fossil-fuel-based systems with low-carbon/efficient alternatives- Optimization of HVAC and building energy controls- Gradual transition to electric or low-emission vehicles	Reduction in direct fuel consumption and operational emissions



**Scope 2 -  
Indirect energy  
emissions**

Purchased electricity

- Integration of renewable energy sources (e.g., solar installations)- Energy-efficient lighting and HVAC upgrades- Smart metering and energy monitoring systems- Procurement of cleaner electricity where possible

Lower electricity-related carbon footprint and improved energy efficiency

**Scope 3 -  
Other indirect  
emissions**

Travel, procurement, waste, commuting, digital/administrative activities

- Promotion of sustainable mobility (public transport, cycling, reduced car use)- Digitalization of academic and administrative processes- Sustainable procurement policies (low-carbon suppliers)- Waste reduction and recycling programs- Awareness and behavioral change campaigns

Significant reduction in value-chain emissions and improved sustainability culture

**Monitoring  
& Evaluation  
(cross-cutting)**

All scopes

- Annual GHG inventory reporting- Benchmarking against international standards (GHG Protocol)- Continuous improvement cycle and performance tracking

Ensures transparency, accountability, and long-term emission reduction

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

- <https://sdg.bsu.edu.az/> This page provides an overview of Baku State University’s commitment to the Sustainable Development Goals, including policies, collaborations, and key initiatives supporting sustainability.
- <https://sdg.bsu.edu.az/allnews> This section presents the latest news and events related to SDG activities, partnerships, and academic initiatives carried out at the university.
- <https://sdg.bsu.edu.az/university-policies> This page outlines institutional policies that support sustainability, including governance, ethics, equality, and environmental responsibility within the university.
- <https://sdg.bsu.edu.az/climate-action-policy> This page introduces the university’s climate action policy, focusing on reducing environmental impact and aligning with global climate goals.
- <https://sdg.bsu.edu.az/uploads/files/Climate%20action%20policy.pdf> This document provides a detailed framework of the university’s climate action policy, including objectives, strategies, and implementation measures.
- <https://sdg.bsu.edu.az/sdg-reports> This section compiles official reports demonstrating the university’s progress and performance in achieving different Sustainable Development Goals.
- <https://sdg.bsu.edu.az/report-on-sdg-7-affordable-and-clean-energy> This report highlights the university’s initiatives, projects, and outcomes related to affordable and clean energy.
- <https://sdg.bsu.edu.az/uploads/files/SDG%207%202025.pdf> This document presents a detailed 2025 report on SDG 7, including data, achievements, and future targets in clean energy development.
- <https://sdg.bsu.edu.az/report-on-sdg-13-climate-action> This report focuses on the university’s actions, strategies, and results in combating climate change under SDG 13.



- <https://sdg.bsu.edu.az/uploads/files/SDG%2013%202025.pdf> This file provides a comprehensive 2025 report on climate action efforts, including emissions reduction and sustainability initiatives.
- <https://sdg.bsu.edu.az/climate-action-plan> This page describes the university's long-term climate action plan, outlining goals, timelines, and strategic priorities.
- <https://sdg.bsu.edu.az/climate-action-plan-action> This section details specific actions and measures implemented under the climate action plan.
- <https://sdg.bsu.edu.az/energy-efficiency-plan> This page explains the university's energy efficiency strategy aimed at reducing energy consumption, increasing renewable energy use, and supporting carbon neutrality goals.
- <https://sdg.bsu.edu.az/news/bsu-and-kobia-open-ecoenergy-station-on-campus> Baku State University and KOBIA launched a solar- and wind-powered EcoEnergy charging station on campus.
- <https://baku.ws/social/bdu-nun-erazisinde-ekoloji-temiz-enerji-doldurma-mentegesinin-acilisi-olub> An eco-friendly energy charging station was opened at Baku State University to promote green energy use.
- <https://muallim.edu.az/news/bduda-ekoenerji-mentegesi-acilib-685a39115845f5b88ef92e1d> An eco-energy station was established at Baku State University to support sustainable energy practices.
- <https://muallim.edu.az/baki-dovlet-universitetinde-eko-mekan-yaradilib---fotolar> An eco-space was created at Baku State University to encourage environmental sustainability initiatives.
- <https://sdg.bsu.edu.az/news/dedicated-lanes-for-bicycles-and-small-electric-vehicles-at-the-main-entrance-of-bsu> Dedicated lanes for bicycles and small electric vehicles were introduced at Baku State University.
- <https://sdg.bsu.edu.az/news/ayna-holds-info-session-on-sustainable-urban-mobility-at-bsu> AYNNA held a session on sustainable urban mobility at Baku State University.
- <https://sdg.bsu.edu.az/news/bsu-volunteers-participate-in-tree-planting-campaign-dedicated-to-azerbaijan-youth-day> Volunteers from Baku State University joined a tree-planting campaign for Azerbaijan Youth Day.
- <https://sdg.bsu.edu.az/news/bsu-flower-planting-campaign> A flower planting campaign at Baku State University supported campus greening.
- <https://sdg.bsu.edu.az/news/methodology-for-calculating-biomass-and-carbon-sequestration-potential-in-azerbaijan-forests-brochure-published-by-bsu-staff> Staff of Baku State University developed a methodology for biomass and carbon sequestration assessment.
- <https://sdg.bsu.edu.az/news/air-pollution-biomonitoring-is-being-conducted-in-baku-city-and-the-absheron-peninsula-at-bsu> Baku State University conducts air pollution biomonitoring in Baku and the Absheron Peninsula.
- <https://sdg.bsu.edu.az/news/bsu-presents-results-of-active-biomonitoring-of-atmospheric-air-in-baku-and-absheron> Baku State University presented results of atmospheric air biomonitoring.
- <https://sdg.bsu.edu.az/news/bsu-volunteers-organize-awareness-event-dedicated-to-international-recycling-day> Volunteers of Baku State University organized an event for International Recycling Day.
- <https://sdg.bsu.edu.az/news/waste-for-gifts-festival-held-at-bsu> The "Waste for Gifts" festival at Baku State University promoted recycling.
- <https://sdg.bsu.edu.az/news/scientific-seminar-at-bsu-carbon-credit-market-and-potential-opportunities> A seminar on carbon credit markets was held at Baku State University.
- <https://sdg.bsu.edu.az/news/systematic-planned-and-thoughtful-measures-are-being-implemented-in-our-country-to-combat-climate-change--elchin-babayev> Elchin Babayev highlighted national efforts to combat climate change.
- <https://sdg.bsu.edu.az/news/research-on-hybrid-energy-systems-is-conducted-at-bsu> Research on hybrid energy systems is conducted at Baku State University.
- <https://sdg.bsu.edu.az/news/bsu-has-joined-the-global-academic-network-canie-to-combat-climate-change> Baku State University joined the CANIE network to address climate change.
- <https://sdg.bsu.edu.az/news/a-young-scientist-of-bsu-is-conducting-research-on-green-energy-production> A young researcher at Baku State University works on green energy production.



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- <https://sdg.bsu.edu.az/news/scientific-seminar-on-prospects-of-rechargeable-sodium-ion-batteries> A seminar on sodium-ion battery technologies was held at Baku State University.
- <https://sdg.bsu.edu.az/news/bsu-nano-research-laboratory-hosts-scientific-seminar-titled-nanomaterials-for-hybrid-solar-cells> Baku State University hosted a seminar on nanomaterials for hybrid solar cells.