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

Azerbaijan State Oil and Industry University (ASOIU) recognizes that improving the energy efficiency of its existing buildings is a cornerstone of achieving its long-term sustainability and carbon-neutrality goals. Guided by the ASOIU Climate Action Plan (2023–2050) and the Sustainability Plan (2023–2030) the University has established a structured and evidence-based programme to modernize all campus facilities in line with both national energy-efficiency regulations and international standards such as ISO 50001 and the EU Energy Efficiency Directive.

ASOIU's plan emphasizes progressive infrastructure transformation, integrating technical audits, building retrofits, and renewable-energy installations to reduce total energy consumption and greenhouse-gas emissions. This initiative not only advances UN Sustainable Development Goals 7 (Affordable and Clean Energy) and 13 (Climate Action) but also serves as a national demonstration of sustainability within Azerbaijan's higher-education sector. The following table outlines the key elements of ASOIU's upgrade plan, including objectives, standards, governance mechanisms, and progress milestones.

Section	Details
Policy Basis	The ASOIU Climate Action Plan (2023–2050) and Sustainability Plan (2023–2030) require continuous improvement of campus infrastructure to meet national and international energy-efficiency standards. The Addendum to the Climate Action Plan confirms the University's commitment to net-zero by 2040 and mandates retrofitting and upgrading of all existing buildings.
Main Objective	Modernise and upgrade all existing campus buildings to achieve > 30 % energy-performance improvement by 2035 and full compliance with national minimum energy performance standards (MEPS).
Audit and Baseline Phase	Conduct comprehensive energy audits for 100 % of buildings to determine baseline kWh/m², HVAC efficiency and insulation losses (2025–2026). Prioritise highest-consumption facilities for early upgrades.
Upgrade Measures	1 Replace fluorescent/incandescent lighting with LED and sensor-based systems 2 Retrofit windows and roofs for thermal insulation 3 Install energy-efficient HVAC and smart thermostats 4 Introduce solar PV panels on selected rooftops 5 Implement Building Management System (BMS) for real-time energy monitoring.
Phased Timeline	**Phase 1 (2025–2027):** Lighting & insulation retrofits on 30 % of stock • **Phase 2 (2028–2031):** HVAC replacement + solar integration on 40 % • **Phase 3 (2032–2035):** Deep retrofits for remaining 30 % to reach "nearly zero energy" standard.
National and International Standards	• Azerbaijan State Construction Norms • EN 15232 (Building Automation) • EU Energy Efficiency Directive framework

Followed	• ISO 50001 (Energy Management Systems) • UN SDGs 7 and 13.
Governance & Oversight	The **Working Group for Environmental Governance** under the ASOIU Sustainability Committee manages implementation, reporting to the Rectorate. Each project has a Building Energy Manager and annual performance report.
Monitoring & Verification	Energy use tracked via smart meters and sub-meters; data published in annual Sustainability Reports. Post-retrofit buildings must demonstrate ≥ 20 % energy savings before certification.
Funding Mechanisms	Combination of university budget, national energy-efficiency grants, and public-private partnerships (PPPs). Estimated budget for first phase ≈ USD 700 000 (energy-efficiency upgrades) as listed in the Climate Action Plan Budget Table.
Expected Outcomes by 2035	• 30 % reduction in electricity consumption • 25 % reduction in heating energy • Annual CO_2e emissions cut of ~ 600 t • Enhanced indoor comfort for students and staff.

Supporting sources:

1. https://asoiu.edu.az/upload/sustainability/Sustainability_Plan_ASOIU.pdf
2. https://asoiu.edu.az/upload/sustainability/pdf/policy/Climate%20Action%20Plan.pdf