AMERICAN UNIVERISITY OF NIGERIA, YOLA, NIGERIA
University Energy Conservation Policy

Effective Date: May 14, 2016
Last Date of Review: May 14, 2024
Due for Review: May 14, 2025

PURPOSE

The American University of Nigeria (AUN) is committed to achieving its vision as a "Development University." A key aspect of this vision is Goal 5, which focuses on developing a physical environment that enhances learning, teaching, and research. AUN aims to be a leader in sustainability, not only in Africa but also on a global scale. This commitment is reinforced in the AUN Strategic Plan for 2024 – 2029, particularly under Theme Four, Goal 3, which emphasizes the importance of creating a comprehensive energy plan for the campus, alongside exploring "green initiatives."

AUN is dedicated to promoting regional sustainability by implementing high standards to minimize energy use and associated costs. The university collaborates with various institutions and individuals internationally who share a commitment to sustainability, environmental protection, energy efficiency, rights advocacy, and community development—principles that have guided AUN since its establishment in 2003.

This policy document serves to ensure that all new constructions, renovations, and facilities adhere to energy efficiency standards. It defines processes for managing energy and utility consumption on campus through the adoption of sustainable practices aligned with initiatives such as "Go Green," "Race to Zero," and "Yola EcoSentials." This includes the utilization of public electricity from the Yola Electricity Distribution Company (YEDC), Automotive Gas Oil (AGO)-Diesel and fuel oil for all campus buildings and utilities, as AUN seeks to increasingly depend on renewable energy sources.

POLICY DESCRIPTION

This policy provides a framework for establishing accepted protocols, practices, and operational standards for energy conservation throughout all facilities, buildings, and campuses of AUN.

STANDARDS GUIDELINES FOR ENERGY CONSERVATION

Energy Use Intensity (EUI) - represented as energy consumption per square foot or meter annually. It is calculated by dividing the total energy used by a building in a year by its total gross floor area. EUI can be quantified in gigajoules per square meter per year (GJ/m^2/year) or thousands of British thermal units per square foot per year (kBtu/sq. ft./year). To derive EUI, the annual energy consumption must be converted from kilowatt hours or therms of Automotive Gas Oil (AGO)-Diesel to the appropriate units.

Retrocommissioning for Enhanced Performance: Retrocommissioning is a structured approach aimed at optimizing the performance of existing buildings. This holistic method identifies operational improvements to enhance occupant comfort while reducing energy use. The process can take place independently or in combination with a retrofit initiative.

ASHRAE Level 2 Audit: The Level 2 audit enhances the Level 1 analysis with more in-depth energy calculations and the inclusion of financial assessments for proposed energy-saving measures. This audit employs utility data spanning a more extended period, allowing for a comprehensive understanding of the building's energy consumption, including aspects such as the building envelope, lighting, HVAC (heating, ventilation, and air conditioning), domestic hot water (DHW), plug loads, and compressed air, among others.

Measurement and Verification: This refers to the systematic measurement and confirmation of energy performance and improvements within the organization. Established methods and processes are utilized to assess and validate energy performance changes resulting from planned alterations to the energy infrastructure of specific facilities or groups of facilities in a clear and defined manner.

POLICY STATEMENTS

1. The American University of Nigeria (AUN) is dedicated to reducing its energy use intensity by 90% by the year 2029, using 2017 as the reference point. To achieve this goal, AUN will actively support the adoption of renewable energy sources, particularly solar energy, during the renovation of existing structures and the construction of new ones. The university will conduct annual reviews of its energy conservation objectives to identify any operational challenges and opportunities that could influence long-term performance.

2. All facilities on the AUN campus—including administrative buildings, an e-library, hostels, academic buildings, and a commencement hall—will be managed in a manner that maximizes energy efficiency. The aim is to create a university environment that is energy independent, enriches, engages and the community about energy conservation.

3. The AUN Sustainability Office, in collaboration with the AUN Energy Office and the Engineering School Management, will establish and publicly share energy performance targets, measured as energy use intensity (kBtu/SF). They will monitor and assess performance on a monthly basis as part of the Facilities Management review process.

4. Energy usage for all university-owned, operated, and managed buildings will be benchmarked using the Advancing Regional Sustainability (STARS) Portfolio Manager Tool. Efforts will be made continuously to enhance energy efficiency through ongoing capital and infrastructure improvements, focusing on achieving energy independence, retro-commissioning, and conducting ASHRAE Level 2 energy audits.

5. AUN will seek to secure necessary funding to implement energy efficiency initiatives, aiming to act swiftly on identified measures once funding is obtained. All implemented measures will be subjected to a thorough pre- and post-measurement and verification process.

6. Responsibility for timely maintenance of electrical equipment across campus will lie with all building managers. This includes upgrading to modern, energy-efficient, and environmentally friendly equipment to ensure optimal efficiency.

7. AUN's management, educational institutions, entrepreneurship innovation centers, the AUN Atiku Institute, faculty, staff, and students will actively pursue funding sources for energy-efficient upgrades and utility infrastructure renewal projects. This will include opportunities from international, federal, state, and private sectors. Should external funding sources fall short, the university will reassess priorities within the Capital and Infrastructure Improvement funds on a biannual basis.

8. AUN is committed to collaborating with international, federal, state, and local governments, as well as various organizations, to achieve our energy conservation and utility management goals. This includes partnering with the Adamawa State Environmental Protection Agency (ASEPA), the Office of the Senior Special Assistant to the President on Sustainable Development Goals, the National Environmental Standards & Regulations Enforcement Agency (NESREA), the National Oil Spill Detection and Response Agency (NOSDRA), the Ministries of

Environment, the Adamawa State Planning Commission SDG Office, and other relevant governing agencies. Together, we aim to foster sustainable practices and drive positive environmental outcomes.

9. The University Sustainability Committee, Energy Committee, and Engineering Committee, chaired by the Deputy Vice-Chancellor/Vice President of Finance and Engineering, are entrusted with the implementation of this policy and the identification of energy-saving initiatives within the Energy and Utility Campus Master Planning efforts.

10. These committees will convene monthly to evaluate ongoing conservation programs across the university. They will track monthly energy consumption in all buildings against set energy-saving targets and benchmarks, presenting their findings to the University Senate. Their responsibilities include managing energy consumption to:

    - Eliminate unnecessary costs,
    - Enhance cost-effectiveness, productivity, and working conditions,
    - Lower greenhouse gas emissions and protect the environment,
    - Regain control over the university's energy consumption through improved purchasing, operational practices, and training, and
    - Foster awareness among faculty, staff, and students about climate change, fossil fuel depletion, and the significance of energy conservation through regular engagement.

An energy procurement strategy was designed and implemented to ensure purchasing decisions mitigate market volatility, enhance budget certainty, and secure AGO and electricity in high inflated economy with a competitive market.

PROCEDURE FOR GRIEVANCES

Any faculty, staff member, student, or stakeholder of AUN may submit an appeal to the Vice Chancellor if they believe that a decision is in violation of academic rights or freedoms as outlined in this policy. The Vice Chancellor will appoint a committee to review the appeal.

The review committee will have the following responsibilities:

- Assess whether the proper procedures of the university have been adhered to.
- Evaluate the appeal and grievances to make recommendations.
- Inform the complainant of its findings.

Once the committee has reviewed the case, it will present its recommendations to the Vice Chancellor and the individual filing the grievance.

The decision made by the Vice Chancellor will be considered final.

AUDIENCE FOR POLICY AWARENESS

This policy must be communicated to University Management, Directors, Managers, Program Coordinators, Faculty, Staff, Students, and the Public, as many facilities are available for community use in alignment with our vision as a "development university."