SDG 7 - AFFORDABLE & CLEAN ENERGY

Building Upgrade to Higher Energy Efficiency

The University of Lagos is actively transitioning its campus infrastructure toward higher energy efficiency through large-scale solar generation, building-specific retrofits, and strict energy-auditing protocols. The university combines faculty-led technical research with externally funded clean-energy deployments through partnerships to upgrade existing buildings to higher energy efficiency taking advantage of expansive rooftops on major existing structures.

National Policy Framework

The University of Lagos as part of its contribution to national policy framework towards the efficient use of the nation's energy resources at the Akoka campus houses the National Centre for Energy Efficiency and Conservation (NCEEC) established since 2008.

Solar Power and Retrofits

In addition, the University of Lagos is a beneficiary of the Federal Government's national public sector solarisation initiative led by the Rural Electrification Agency (REA). The university is slated to receive an 8-megawatt water-based solar farm designed to power campus facilities and reduce reliance on fossil-fuel generators.

Alumni and philanthropic partnerships are funding targeted building upgrades, including the #40 million lights up Faculty of Arts Project that equips classrooms and common areas with dedicated solar panels and inverters.

Clean-Energy Research

Through the £3.5 million CEPREC initiative hosted via NITHub, UNILAG is developing scalable, low-carbon energy models for institutional buildings across West Africa.

Green transportation

The university runs a fleet of 30 Solar powered buses and 20 tricycles operating campus. The services connect commuters from the university two access gates to centre of the campus via two different routes. This is initiative is a testament of the university's effort to reduce the use of fossil fuel vehicles and the improvement of air quality at the micro-level.

Compressed Natural Gas (CNG) refuelling and conversion stations

University of Lagos has benefited from the Federal Government Compressed Natural Gas (CNG) refuelling stations and vehicle conversion centre under the Special Palliative Relief on University Transportation (SPROUT) project initiative to reduce transportation costs for students and staff.

Building Modeling and Campus-Wide LED Transitions
Energy audits and BIM simulations (using Autodesk Revit and Insight) on the various university building mapped out lighting, glazing, and equipment retrofits to lower its Energy Use Intensity (EUI) of 776.78 kWh/m²/year.

Comprehensive audits published in AIMS Energy has demonstrated that replacing legacy fixtures across UNILAG academic blocks cuts total lighting electricity loads by over **88%**.

Student Hostel Load Optimization
Following UNILAG energy audits across 130 hostel rooms that recorded high consumption (372.11 kWh/m²/year). The university prioritised upgrade wattage thresholds on high-draw appliances alongside high-efficiency fans and lighting.

Phased Envelope & HVAC Upgrades
Facility renovation frameworks outlined in the UNILAG Retrofitting Design Strategies Brief prioritize high-performance window glazing, roof insulation, high-SEER air conditioning units, and Building Management Systems (BMS) for real-time load monitoring.

Pledge Towards Sustainability
University of Lagos firmly resolved in the Strategic Plan document of 2012-2037, to achieve sustainable energy supply by 2015 through a mix of solar, wind energy and waste for biogas generation. It is imperative to state that a lot of intentional efforts are going on to reduce our carbon footprints to align with the SDG target through research, partnerships, Federal Government and university initiatives.
Following revision of the strategic plan document the university has pledged again to meet net zero emissions as per UN SDGs by 2032.

Pledge
“We, University of Lagos, are firmly committed to promoting a sustainable future and upholding environmental responsibility. Acknowledging the urgent need to minimise our carbon footprint and address the effects of climate change, we pledge to achieve a transition to 100% renewable energy as a significant step towards building a cleaner, greener, and more sustainable world. Through this commitment, we aspire to lead by example, encourage environmental consciousness within our community, and inspire meaningful action towards positive change. Together, we can advance a future powered entirely by clean and sustainable energy, safeguarding the environment and creating a healthier, more resilient planet for generations to come”.

Our Scope for Renewable Energy Targets
Our targets cover all greenhouse gas emissions including scopes 1 (direct emissions), 2 (purchased energy) and 3 (relevant value chains) across all our campuses. We are also committed to city level

emissions, land management, protection of existing vegetation, expansion of green spaces and initiatives that enhance carbon sequestration across our campuses.

Through these efforts, we aim to contribute meaningfully to the transition towards renewable energy, climate resilience and a sustainable, low-carbon future, in alignment with the United Nations Sustainable Development Goals, particularly SDGs 7, 11, 13 and 15