

KUMASI TECHNICAL UNIVERSITY



**CLIMATE ACTION POLICY
AND STRATEGIES (CAPS)**

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1.0 BACKGROUND

There is increasing evidence that emissions of carbon dioxide and other greenhouse gases (GHGs) are destabilizing the Earth's climate and impacting the ecology of the planet. Conclusions of the 2007 Intergovernmental Panel on Climate Change (IPCC) are that human- caused contributions to climate change are "more likely than not" and the expectation is that the human-caused impact in the future is "virtually certain".

In 2018, the Intergovernmental Panel on Climate Change (IPCC) released a special report on the impacts of global warming. It determined the impacts of climate change would likely be worse than previously expected, and the previously assumed safe limit of a 2°C increase would result in irreparable damages, and an increased chance of runaway climate change. The Report found that limiting warming to 1.5°C would help protect against the worst changes. Limiting climate change to this level will require global net anthropogenic GHG reductions of 45% by 2030 (below a 2010 baseline), and to net zero by 2050.

In recognition of the impact of Climate Change, the Vice-Chancellor of Kumasi Technical University tasked a committee to develop a policy framework for the University that embeds climate justice throughout its activities.

The goal of the policy is to intentionally expand climate awareness and sustainability on campus. This Policy sets targets that will accelerate and broaden the University's climate action for net-zero operational emissions to by 2050. It will help to create platforms for climate informed teaching,

learning, research, and to strategically position KsTU's as a leader in climate action and sustainability in Africa.

2.0 PURPOSE OF THE CAPS

The Climate Action Policy and Strategies (CAPS) provides the overarching policy direction of Kumasi Technical University to make informed and strategic policy decisions to reduce Green House Gas (GHG) emissions. Implementing the CAPS will reduce medium to long term operational costs associated excessive use of carbon sources due to inefficiencies, increase the future resiliency of the University to withstand the impacts of acute climate shocks, and events resulting from climate change, and to demonstrate the University's commitment and leadership to address climate change.

Further, the anticipated advancement in de-carbonization, campus greening, sustainable procurement, operations, and energy efficient technologies will provide a platform to enhance teaching, learning, and research, by partnering with faculty researchers devoted to help advance innovation in these areas and promote Kumasi Technical University as a Living Laboratory, positioning the University as a testbed of innovation.

3.0 POLICY OBJECTIVES

This policy describes KsTU's commitments to reduce operational greenhouse gas (GHG) emissions supporting Global and Ghana's climate goals to address the climate crisis while mitigating impacts on vulnerable populations. The policy further proposes activities to engage staff, students, and other stakeholders in climate action and awareness.

The CAPS establishes strategies in eight (8) operational areas of climate action: energy, transportation, building, administration and operations, waste management, procurement, food & water services, and Climate action education.

3.1 Energy

Kumasi Technical University is committed to reducing its greenhouse gas emissions by reducing energy use and switching to clean energy supplies. Currently, the utilisation of energy in KsTU cannot be described as efficient. Either investment made on infrastructure will be more than the required or the ecological challenges may be compounded because of the high cost of electricity bills. About 24% of the energy used in KsTU go waste due to a lack of simple housework measures.

- i. **Energy Efficiency:** The University will implement energy efficiency actions in buildings and infrastructure systems to reduce the campus's energy use intensity by an average of at least 2% annually.
- ii. **On-campus Renewable Electricity:** The University shall install on-site renewable electricity supplies and energy storage systems whenever cost-effective.
- iii. **Water supply:** The University shall install solar systems for water distribution on all campuses by 2030.
- iv. **All campus street lighting systems shall be solar energy powered.**

3.2 Transportation

The goal is to implement transportation programs and greenhouse gas (GHG) emission reduction strategies that reduce the environmental impacts from commuting and fleet.

- i. After ratifying this policy, electric vehicles (EV) and plug-in hybrid vehicles shall account for at least 50% of all vehicle acquisition by 2035.
- ii. By 2030, at least 50% of university buses shall be electric vehicles
- iii. New sedans and private vehicles meant for private use, that are not EVs or plug-in hybrid shall not have engine capacity of more than 1.5 cc from 2025.
- iv. The University shall abolish single occupant commuting except for the Chancellor, Council Chairman, and Principal Officers as defined by the University Statutes.

3.3 Building

- i. New Buildings
 - (a) At a minimum, all new building projects will be designed, constructed, and commissioned to meet or outperform the Ghana Building Code (GS 1207:2018) energy-efficiency and sustainability standards (Clause 14) and Green Building standards (Clause 37).
 - (b) All new buildings shall be designed, constructed, and commissioned to have renewable energy supply of

not less than 20% of the energy requirement of the building.

- (b) Projects unable to meet these requirements will document the rationale for this decision.

- iii. Existing Buildings

All existing buildings shall be progressively redesigned to align with 3.3 (1)(A) and (B)

3.4 Administration and operations

The goal is to reduce the per capita paper by at least 20 % of each previous calendar year. To achieve this:

- i. The University shall implement the use of electronic means of communication, such as emails, text messages, and communication applications such as WhatsApp.
- ii. The University will resort to the electronic system for the collection of data for the payment of marked script allowances and other claims.
- iii. The University shall restrict the printing of student project works and theses for assessment and final submission. All project works and theses should be submitted digitally for assessment, both internal and external assessment. Departments may be allowed to print a few copies of the final project works and theses for re-accreditation purposes. All departments shall be encouraged to keep digital copies of projects work in the departments and library repositories.

3.5 Waste management

The University aims to achieve zero waste through prioritizing waste reduction in the following order: reduce, reuse, and then recycle and compost (or other forms of organic recycling)

- i. Reduce per capita municipal solid waste generation by 25% per capita from FY2023/24 levels by 2030 and 50% per capita from FY2023/24 levels by 2035.
- ii. The University shall prohibit the sale, procurement, or distribution of packaging foam and single use plastics, such as food containers and packaging material, other than that utilized for laboratory supply or medical packaging and products.
- iii. The University shall implement a comprehensive recycling program for paper, plastics, metals, and electronic waste by 2030.
- iv. Waste sorting and segregation shall be implemented campus wide by 2030.

3.6 Sustainable Procurement

Recognizing the substantial impact that procurement decisions have on the environment, society, and the economy, Kumasi Technical University will maximize its procurement of sustainable products and services. The strategies outlined throughout this policy will be applied within the constraints of budgetary requirements and in compliance with all applicable procurement rules, regulations, and laws.

A. Electrical Appliances

- i. The University shall prohibit the purchase of 1-2 star for 5-star rated electrical appliances and 1-3 star for 7-star rated appliances including refrigerators and air-conditioning systems.
- ii. The inverter-type air-conditioners and other technologies with higher energy efficiency rating are preferred.
- iii. The maximum power consumption of ceiling fans used in the classrooms, laboratories and other places of the University shall be limited to 50-Watt rating.
- iv. Smaller fans with power ratings not exceeding 40 Watt are to be used in student rooms at the halls shall be procured.

A. General Goods and Services

- i. The University shall prohibit the procurement of bottled/ sachet water for staff meetings and staff engagement at the council chamber and the Great Hall. Such events will be provided with dispensable water and staff will be required to use their personalised water bottles/ flask.
- ii. The University shall procure branded water bottles or flask for all staff to be used for drinking water at meetings in B1 above.
- iii. Meetings involving considerable number of external partners/invited guest, such as congregation, matriculation, council meeting, and the likes are exempted.

3.7 Food and water services

- i. The University shall prohibit the use of bottled/sachet water for staff meetings and staff engagement at the council chamber and the Great Hall. Such events will be provided with dispensable water and staff will be required to use their personalised water bottles/flask.
- ii. Staff members and students who use the university restaurant and dining facilities should develop the habit of eating their meals at the restaurant to minimize the use of plastic containers. This practice will not only reduce plastic waste and its environmental impact but also promote a more sustainable and eco-friendly campus culture. Additionally, dining in a restaurant can foster a sense of community and provide opportunities for social interaction and networking.
- iii. Eliminate single-use plastics and non-recyclable packaging in all food service operations.
- iv. Encourage the use of biodegradable packaging and reusable containers.
- v. Implement a food waste reduction program that includes strategies such as portion control, composting, and donating surplus food to local charities.
- vi. Increase the availability and promotion of plant-based and low-carbon menu options in campus dining facilities.
- vii. Equip kitchens with energy-efficient appliances and implement water-saving measures.

- viii. Train food service staff on sustainable practices and the importance of reducing energy and water consumption.
- ix. Organize workshops, seminars, and events to raise awareness about sustainable food practices and the impact of food choices on climate change.
- x. Collaborate with student organizations and faculty to promote sustainable food initiatives and encourage active participation from the university community.

3.8 Climate Action Education, Research and Awareness

- i. Departments shall be encouraged to include climate education and sustainability into the academic experience of students.
- ii. The University shall encourage the formation of student's Climate Action Club to promote climate awareness among students.
- iii. The University through the Centre for Renewable Energy and Energy Efficiency (CREK) in partnership with the Student Representative Council (SRC) shall organise a Climate Action Week/Day annually to amplify engagement on climate action.
- iv. Identify, create and promote (existing and additional) funding opportunities to support innovative sustainability initiatives driven by students and staff.

4.0 IMPLEMENTATION MECHANISM AND ACCOUNTABILITY

4.1 Coordination of Activities

The Head of CREK shall have the responsibility for coordinating all the activities and guidelines in this policy. S/He shall liaise with all relevant Units of the University in the implementation of the activities contained in this policy. The Consultant shall also be responsible for sensitising all stakeholders (heads of department/units and the general University staff and students) about this policy and the need for adherence.

4.2 Reporting

- i. The head of CREK shall produce an annual report on emissions reduction (i.e. an annual Greenhouse Gas inventory for scope 1 and 2 emission sources) to the Vice-Chancellor. The GHG inventory shall be shared with Academic Board. The report for 2025 shall serve as the baseline report.
- ii. On an annual basis, the Vice-Chancellor shall report to Convocation on the University's Climate Action efforts in each area of the Policy and its emission reduction efforts.

4.3 Stakeholders Involvement

We recognise that to successfully realise some of the objectives of this Policy, it would have to collaborate with strategic partners and stakeholders including private sector suppliers and companies, financial institutions and banks, donor agencies, other public institutions, the Ghana Tertiary

Education Commission (GTEC), Ghana Education Trust Fund (GETFund), Ministry of Environment, Science, and Technology, Energy Commission, etc.

The Office of the Pro Vice-Chancellor shall lead efforts to solicit for funding for larger scale projects implementation on campus to meet targets in this Policy. Sponsors with funding of US\$ 50,000 and above shall be recognised by the University with special Carbon Footprint Reduction Awards

5.0 POLICY ALIGNMENT, VALIDITY AND REVIEW

5.1 Alignment with other Policies

The Planning and Quality Assurance Directorate (PQAD) shall be responsible for monitoring the implementation of this policy to ensure that it is in alignment with other policies and strategies of the University. The internal audit department shall conduct annual audits to assess compliance with this Policy. Actions and strategies of this policy should not conflict with other policies of the University. Should there be any conflict, the Academic Board shall decide on the matter.

5.2 Validity of Policy Provisions

This policy does not seek to replace other provisions in the KsTU statutes. In the event of conflict, appropriate measures shall be taken by the Academic Board to address them. The Policy becomes operational after ratification by the Governing Council.

5.3 Review of the Policy

It is recommended that the Climate Action Policy and Strategies document be reviewed every five (5) years to address changes in the Global Climate discourse.