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CLEAN ENERGY POLICY 2025

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Version 3

CLEAN ENERGY POLICY 2025



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CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT
ODISHA

FOREWORD



At Centurion University of Technology and Management, we recognize that sustainability and environmental responsibility are essential to building a resilient and sustainable future. As an institution committed to education, innovation and societal development, we acknowledge our responsibility to reduce our environmental footprint and promote the responsible use of energy and natural resources across our campuses.

The Clean Energy Policy reflects our commitment to reducing carbon emissions, promoting renewable energy, improving energy efficiency and fostering a culture of energy conservation. Through energy-efficient infrastructure, sustainable transportation, responsible waste management, clean energy research and community engagement, the University strives to integrate sustainability into its academic, administrative and operational practices.

This Policy provides a structured framework for implementing clean energy initiatives, monitoring energy performance and ensuring compliance with applicable environmental and energy-efficiency standards. It also encourages the active participation of faculty, staff, students and other stakeholders in adopting responsible energy practices and advancing innovative solutions for a greener future.

I urge the entire Centurion University community to embrace the principles of this Policy and contribute collectively towards a cleaner, greener and more energy-efficient campus. Together, let us strengthen our commitment to environmental stewardship and sustainable development for the benefit of present and future generations.



Prof. (Dr.) Supriya Pattanayak

Vice-Chancellor

Centurion University of Technology and Management

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Clean Energy Policy

Preamble

Centurion University is committed to sustainability and environmental responsibility. This Clean Energy Policy outlines our commitment to reduce carbon emissions, promote renewable energy use and enhance energy efficiency across all university operations.

1. Objectives

- **Reduce Carbon Footprint:** To achieve a significant reduction in greenhouse gas emissions.
- **Promote Renewable Energy:** To increase the use of renewable energy sources.
- **Enhance Energy Efficiency:** To implement measures to improve energy efficiency.
- **Educate and Engage:** To promote awareness and engagement in clean energy practices within the university community.
- **Compliance and Leadership:** To ensure compliance with relevant regulations and position the university as a leader in sustainability.

2. Scope

This policy applies to all campuses, facilities and operations of Centurion University, including academic buildings, residential areas and administrative offices.

3. Specific Measures

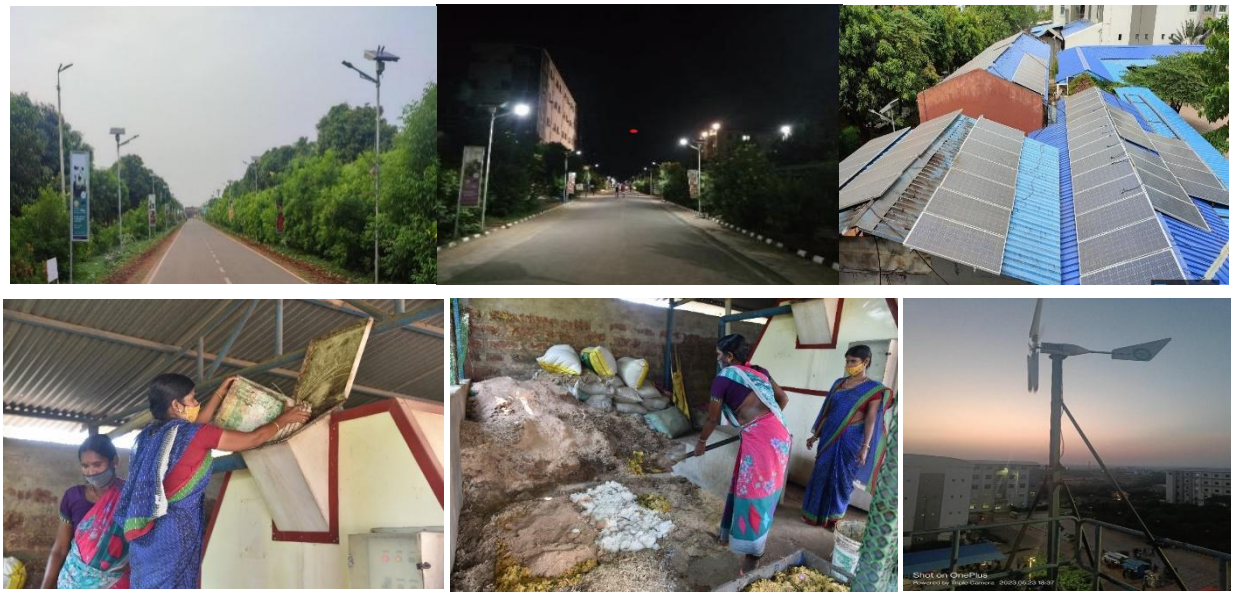
3.1. Energy Conservation

- **Energy Audits:** To conduct regular energy audits to identify inefficiencies and opportunities for improvement.
- **Energy Management Systems:** To implement advanced energy management systems to monitor and control energy use.

- **Behavioral Changes:** To encourage energy-saving behaviors among staff, students and faculty through awareness campaigns and training.

3.2. Renewable Energy Sources

- **Solar Power:** To install solar panels on rooftops and other suitable locations to generate electricity.
- **Wind Energy:** To explore the feasibility of installing wind turbines on campus.
- **Bioenergy:** To utilize organic waste from campus operations for bioenergy production.
- **Green Power Purchase:** To procure green power through renewable energy certificates or direct purchase agreements with renewable energy providers.



3.3. Energy Efficiency and Building Energy Standards

Centurion University of Technology and Management (CUTM) is committed to improving energy efficiency across its campuses through energy-conscious building design, efficient equipment, operational improvements and periodic energy-performance assessments. The University shall consider applicable Indian building-energy standards and regulations when planning new buildings, undertaking major renovations and upgrading existing facilities.

3.3.1 Applicable Indian Building-Energy Standards

CUTM shall identify and apply the relevant statutory building-energy requirements to each applicable building project, taking into account its occupancy, connected electrical load, contract demand, construction or renovation scope and the regulations in force at the project location.

The following standards shall guide building-energy planning and assessment, as applicable:

- **Odisha Energy Conservation Building Code (OECBC):** The applicable Odisha state code shall be considered for covered commercial buildings and building projects within Odisha.
- **Energy Conservation and Sustainable Building Code (ECSBC) 2024:** CUTM shall treat the ECSBC 2024 issued by the Bureau of Energy Efficiency (BEE) as the national reference code for covered commercial buildings. It replaces the earlier ECBC 2017 and is described further in Section 3.3.3.
- **Energy Conservation Building Code (ECBC) 2017:** Applicable only to buildings or projects approved under ECBC 2017 before the ECSBC 2024 became applicable to them, together with any later national provisions issued by BEE.
- **National Building Code of India 2016 (NBC 2016), including applicable amendments:** Relevant provisions concerning building design, building services, safety and sustainability shall be considered alongside applicable state and local requirements.

Where multiple requirements apply, the University shall follow the legally applicable provisions and any more stringent requirements mandated by the competent authority. The University shall not claim compliance with a particular code unless it is supported by the relevant design documents, assessments, approvals or compliance records.

3.3.2 Energy-Efficient Building Design and Operation

For new construction and major renovation projects, CUTM shall incorporate energy-efficiency measures appropriate to the building's function and climatic conditions. These measures may include:

- **Building envelope:** Appropriate roof and wall insulation, glazing selection, shading and reduction of unwanted heat gain.

- **Passive design:** Building orientation, daylight utilisation, natural ventilation and other suitable climate-responsive design strategies.
- **Lighting:** Energy-efficient LED lighting, daylight integration, occupancy sensors and lighting controls where appropriate.
- **Heating, ventilation and air-conditioning (HVAC):** Selection of efficient equipment, suitable system sizing, temperature controls and periodic maintenance.
- **Electrical systems:** Efficient motors and equipment, power-factor improvement where required and monitoring of significant electrical loads.
- **Renewable energy integration:** Assessment of suitable rooftop solar and other renewable-energy options, subject to technical and economic feasibility.
- **Energy monitoring:** Metering, energy audits and periodic review of building-level electricity consumption to identify opportunities for improvement.

3.3.3 Energy Conservation and Sustainable Building Code (ECSBC) 2024

The Energy Conservation and Sustainable Building Code (ECSBC) 2024 is India's national framework for energy-efficient and sustainable commercial buildings. It has been notified by the Central Government under Sections 14(p), 14(q) and 56(2)(l) of the Energy Conservation Act, 2001. The Act defines the code as the norms and standards for energy efficiency, its conservation, the use of renewable energy and other green building requirements for a building. ECSBC replaces ECBC 2017 by combining energy efficiency with sustainability, covering energy, water, waste, materials, indoor environment and site planning. In line with the Hon'ble Prime Minister's LiFE (Lifestyle for Environment) movement, its scope extends beyond energy efficiency to renewable energy integration and resource efficiency.

CUTM adopts the ECSBC 2024 as part of this Clean Energy Policy on the following basis:

- **Applicability:** The code applies to commercial buildings with a connected load of 100 kW or more or a contract demand of 120 kVA or more. The Energy Management Cell shall assess each academic, administrative, library, laboratory, auditorium and other non-residential building or building complex on every campus against this threshold and record the outcome in the compliance register. Hostels and other residential buildings shall be assessed against the applicable residential provisions in force, including the Eco Niwas Samhita 2024.

- **Performance levels:** ECSBC provides incremental performance levels, namely ECSBC, ECSBC Plus and Super ECSBC. All covered new buildings and major renovations shall meet at least the ECSBC baseline. CUTM shall aim for ECSBC Plus or Super ECSBC for flagship buildings where technically and financially feasible.
- **Passive and sustainable design:** Project designs shall incorporate passive building design strategies, sustainable site planning, water conservation, waste management and improved indoor environmental quality, in addition to minimum energy-performance requirements.
- **Renewable energy:** Rooftop solar and other renewable energy provisions required by the code shall be integrated into covered projects, consistent with the Renewable Energy Sources measures in this policy.
- **State amendments:** States may amend the code under Section 15(a) of the Energy Conservation Act, 2001 to suit local and regional climatic conditions. For campuses in Odisha, the OECBC and any state-notified amendments shall apply where in force and the more stringent requirement shall prevail.
- **Documentation:** Design submissions, compliance checklists, commissioning reports and approvals for each covered building shall be retained by the Energy Management Cell and be available for audit.

3.3.4 Compliance, Verification and Continuous Improvement

The University shall maintain appropriate documentation for applicable building projects, including relevant design specifications, energy assessments, statutory approvals and compliance records, as available and required. Energy audits and periodic performance reviews shall be used to identify energy-saving opportunities and monitor the effectiveness of implemented measures.

The Energy Management Cell shall coordinate with the relevant campus administration, engineering and facilities teams to review energy performance, recommend corrective measures and report progress to the competent University authority. Where applicable, building-energy performance shall be assessed against the relevant code requirements and documented baselines.

Existing buildings shall be assessed progressively, with energy-efficiency improvements prioritised according to energy-consumption patterns, technical feasibility, operational requirements and available resources. This policy shall be reviewed periodically to reflect changes in Indian building-energy regulations, applicable standards, technologies and institutional energy-performance objectives.

- **Lighting:** To upgrade to LED lighting and install motion sensors to reduce energy consumption.
- **HVAC Systems:** Optimize heating, ventilation and air conditioning systems for maximum efficiency.
- **Building Design:** Incorporate energy-efficient design principles in new constructions and renovations, such as improved insulation and passive solar heating.

3.4. Sustainable Transportation

- **Electric Vehicles:** To install charging stations and encourage the use of electric vehicles.
- **Cycling and Walking:** To develop infrastructure to support cycling and walking as primary modes of transport within the campus.

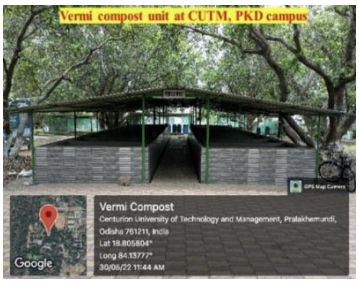




3.5. Waste Reduction and Management

- **Recycling Programs:** To enhance recycling programs for paper, plastics, glass and electronic waste.
- **Composting:** Implement composting facilities for organic waste.

- **Waste Minimization:** Promote the practices that reduce waste generation, such as double-sided printing and use of reusable materials.
- **Waste Segregation at Source:** To segregate waste into wet, dry, recyclable, hazardous and e-waste streams at the point of generation using colour-coded bins in all buildings and hostels.
- **Regulatory Compliance:** To manage waste in accordance with the Solid Waste Management Rules, E-Waste (Management) Rules 2022, Battery Waste Management Rules 2022, Plastic Waste Management Rules, Construction and Demolition Waste Management Rules, Bio-Medical Waste Management Rules and Hazardous and Other Wastes Rules, as amended and in force.
- **Construction and Demolition Waste:** To minimise, reuse and recycle waste from new construction, renovation and demolition and to give preference to recycled and sustainable materials, in line with the waste management provisions of the ECSBC 2024.
- **Laboratory and Hazardous Waste:** To store, label, treat and dispose of chemical and other hazardous laboratory waste only through authorised agencies, with records maintained.
- **E-Waste and Battery Waste:** To dispose of electronic equipment, solar-system components and EV or storage batteries only through authorised recyclers or take-back arrangements.
- **Wastewater and Water Reuse:** To treat wastewater through sewage treatment plants and reuse treated water for gardening, flushing and cooling and to promote rainwater harvesting, in line with the water management provisions of the ECSBC 2024.
- **Organic Waste to Energy and Compost:** To route food and garden waste to composting or biogas units, linking with the Bioenergy measure under Renewable Energy Sources.
- **Waste Audit and Reporting:** To conduct annual waste audits, record quantities generated, recycled and disposed and include waste-diversion results in the annual sustainability report.
- **Zero Wastage of Resources:** To reduce wastage of energy, water and materials through leak repairs, switching off unused equipment, reuse of materials and awareness drives.







3.6. Research and Development

- **Sustainable Technologies:** Invest in research and development of sustainable technologies and practices.
- **Collaborations:** Partner with industry, government and other academic institutions to advance clean energy initiatives.

3.7. Education and Engagement

- **Curriculum Integration:** Integrate sustainability and clean energy topics into the curriculum across disciplines.
- **Workshops and Seminars:** Conduct workshops, seminars and training sessions on clean energy and sustainability.
- **Student Involvement:** Encourage student involvement in sustainability projects and initiatives.







3.8. Monitoring and Reporting

- **Performance Metrics:** Establish clear metrics to measure progress towards clean energy goals.

- **Regular Reporting:** Publish annual sustainability reports detailing achievements, challenges and future plans.
- **Continuous Improvement:** Regularly review and update the Clean Energy Policy to reflect new technologies and best practices.

4. Governance and Implementation

- **Energy Management Committee**: Energy Management Committee responsible for overseeing the implementation of the Clean Energy Policy.
- **Roles and Responsibilities:** To define roles and responsibilities for faculty, staff and students in supporting clean energy initiatives.
- **Funding and Resources:** Allocate sufficient funding and resources to support the implementation of clean energy projects.

5. Compliance and Review

- **Regulatory Compliance**: Ensure all activities comply with local, national and international environmental regulations.
- **Policy Review:** Review the Clean Energy Policy every three years to assess progress and make necessary adjustments.

6. Energy Management Cell

The core responsibility of the Energy Management cell is to supervise the regular affairs of energy saving measures. The committee members periodically meet to review the development of green-energy usage and decreasing the wastages of the energy. Besides this, the committee pass directives on adhering the clauses of energy policy as when required. The committee constitutes following member:

- Prof. Jagannath Padhi, Director, CUTM, Bhubaneswar campus
- Prof. Rajesh Kumar Padhi, Director, CUTM, Rayagada Campus
- Prof. Pradeep Kumar Sarangi, Director, CUTM, Balangir Campus
- Dr. S.P. Nanda, Professor (School of Applied Science) & Dean (Administration), CUTM, Paralakhemundi Campus

- Prof. K.V.D. Prakash, Dean (HRD), CUTM
- Prof. Asish Ranjan Dash, Associate Professor, CUTM, Paralakhemundi Campus
- Mr. Chittaranjan Pattanayak, Sr. G.M. (HR and Admin), CUTM
- Dr. Rajendra Kumar Khadanga, Associate Dean, CUTM, Bhubaneswar Campus
- Dr. Sudhansu Kumar Samal, Associate Professor and HOD, Dept. of EEE, CUTM, Bhubaneswar campus
- Dr. Shiv Sankar Das, Assistant Professor, School of Management, CUTM, Bhubaneswar campus
- Dr. Satyasis Mishra, Dean-SDG, CUTM, Bhubaneswar campus

7. Approval and Review

This policy has been approved by the university administration and will be reviewed periodically to ensure its effectiveness and compliance with current laws and best practices. Any amendments to the policy will be communicated to the university community.



Dr.Anita Patra
Registrar
Centurion University of Technology and Management





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CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT, ODISHA

CAMPUSES:

Paralakhemundi Campus
Village Alluri Nagar
P.O. – R Sitapur, Via- Uppalada
Paralakhemundi, Dist.- Gajapati
Odisha, India. PIN– 761211

Bhubaneswar Campus
Ramchandrapur
P.O. – Jatni, Bhubaneswar
Dist.- Khurda, Odisha,
India, PIN– 752050

Balangir Campus
Behind BSNL Office
IDCO land, Rajib Nagar
Dist.- Balangir, Odisha
India, PIN-767001

Rayagada Campus
IDCO Industrial Area
Pitamahal, Rayagada
Dist.-Rayagada, Odisha
India, PIN-765001

Balasore Campus
Gopalpur,
P.O.-Balasore
Dist.-Balasore, Odisha
India, PIN-756044

Chatrapur Campus
Ramchandrapur,
Kaliabali Chhak,
P.O-Chatrapur, Dist.-Ganjam
Odisha, India, PIN-761020