AMITY UNIVERSITY
RAJASTHAN

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Policy For Energy Efficiency in Renovation, Construction, and Maintenance

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1. Introduction

The Energy Efficiency Policy of *Amity University Rajasthan (AUR)* aims to conserve energy, enhance operational efficiency, and ensure sustainable infrastructure development. The policy serves as a guideline and standard operating framework for optimizing energy use across all academic, residential, and administrative facilities of the University. It promotes proactive measures for sustainable energy consumption, cost effectiveness, and environmental stewardship in line with national and global sustainability commitments.

AUR is a LEED Gold Certified green campus situated in the hot and arid region of Rajasthan. The University recognizes that its major energy consumption arises from electrical systems—particularly for lighting, air-conditioning, and transport. Through passive design, natural ventilation, and planned construction, AUR already minimizes its dependency on artificial energy sources. This policy extends that commitment to future growth and modernization efforts.

This policy shall be reviewed periodically and is applicable to all staff, faculty, students, and visitors on the University campus.

2. Scope

This policy covers all activities related to the renovation, construction, operation, and maintenance of university infrastructure, including:

- Academic and administrative buildings
- Hostels, residential quarters, and utility services
- Laboratories, libraries, and recreational facilities
- Transport and logistics systems within the campus

It seeks to cultivate an institutional culture that values responsible energy use, optimal resource utilization, and environmental consciousness.

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3. Objectives

- To instill awareness among all stakeholders about environmental conservation and energy efficiency.
- To ensure that all new constructions comply with sustainability goals and green-building standards.
- To educate faculty, staff, and students about efficient use of energy resources.
- To protect and conserve ecological systems both within and beyond the campus.
- To collaborate with local communities and promote best practices in energy management and environmental protection.

4. Goals of AUR

- Design and construct University buildings that maximize natural lighting and air circulation.
- Conduct periodic awareness programs on energy conservation for all campus stakeholders.
- Gradually replace non-renewable energy with renewable and clean energy sources.
- Undertake annual energy audits to identify opportunities for improvement.
- Adopt energy-efficient electrical appliances for all new installations.
- Ensure compliance with the Energy Conservation Building Code (ECBC) 2017 and other applicable national standards.
- Integrate renewable energy systems to meet a substantial portion of total electricity demand.

5. Strategies and Implementation

a) Passive Architectural Design

All new construction projects shall integrate passive design principles to reduce dependence on mechanical cooling and artificial lighting. Building orientation, shading, cross-ventilation, and thermal insulation shall be key design criteria approved by the University's Engineering and Sustainability Committees.

b) Rooftop Solar Power

AUR has installed grid-connected rooftop solar photovoltaic systems and will continue to expand solar capacity through campus-wide installations to reduce electricity cost and carbon footprint.

c) Thermostat Set Points

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The University maintains a central air-conditioning set point of 23 °C and recommends individual users maintain 24 °C wherever applicable, ensuring comfort with energy efficiency.

d) LED Lighting Systems

All new and retrofitted facilities will use LED lighting and smart occupancy sensors. Conventional systems shall be phased out through an approved replacement schedule.

e) Energy Audit

Annual third-party energy audits will be conducted to assess energy performance, identify wastage, and recommend corrective measures. Findings shall be reviewed by the Energy Management Committee (EMC) for timely implementation.

f) Equipment Maintenance

The Administrative Officer (Maintenance) and Electrical Engineer shall ensure preventive maintenance of all electrical installations, HVAC systems, and renewable energy equipment to maintain maximum efficiency and prolong service life.

6. Future Energy Planning and Forecast Integration (2024 – 2030)

To align with AUR's strategic vision of sustainable growth, an Energy Forecast and Planning Framework (EFPF) will project campus energy demand through FY 2030. This framework will:

- Use FY 2024–25 consumption data as a baseline.
- Account for planned academic, residential, and utility expansions.
- Integrate efficiency upgrades such as high-COP chillers, heat pumps, and renewable hybrid systems.

7. Sustainability Enhancement and Smart Control Integration

To strengthen long-term efficiency, AUR will deploy:

- Building Management Systems (BMS) for real-time monitoring and automation of HVAC, lighting, and key electrical systems.
- IoT-based smart metering and sub-meter analytics for data-driven decision-making.
- Centralized dashboards for monitoring heat-pump and solar systems.

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- Periodic energy performance reviews comparing actual data against forecast benchmarks to guide continuous improvement.

8. Review and Reporting

The Administrative Officer (Maintenance), in coordination with the Energy Management Committee, shall:

- Conduct annual reviews comparing actual consumption with projected targets.
- Evaluate the performance of implemented conservation projects such as solar integration, LED retrofits, and automation.
- Submit an Annual Energy Performance Report to the University Administration, summarizing achievements, deviations, and recommendations.

9. Conservation Behavior

AUR will foster a culture of energy consciousness through:

- Workshops, lectures, and competitions on energy conservation and climate change.
- Departmental initiatives led by Heads of Departments to engage students in sustainability practices.
- Campaigns promote behavioral changes such as switching off unused lights, optimizing air-conditioning, and reducing vehicular emissions.

10. Expected Outcomes

Implementation of this policy will lead to:

- Reduction and stabilization of the University's energy expenditure.
- Significant reduction in greenhouse gas emissions.
- Extended lifespan of electrical and HVAC equipment.
- Improved comfort and environmental quality for the University community.
- Enhanced environmental responsibility among students and staff.

11. Policy Enforcement

This policy shall be enforced by the Administrative Officer (Maintenance) in collaboration with:

- The Directors of Schools/Departments

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- The Energy Management Committee
- The Office of the Registrar and Campus Engineering Division

Regular monitoring and reporting will ensure adherence to all provisions and timely updates based on new technology or policy developments.

12. Policy Review

This Energy Efficiency Policy shall be reviewed every three years or earlier if required by regulatory changes or strategic priorities, ensuring continuous improvement in AUR's sustainability journey.

This policy is aligned with:

- National Energy Conservation Act (2001) and ECBC 2017
- LEED Gold certification standards
- ISO 50001:2018 Energy Management System guidelines
- UN Sustainable Development Goal 7 (Affordable and Clean Energy) and SDG 13 (Climate Action)