



AMITY UNIVERSITY

RAJASTHAN

SDG-7: Affordable and Clean Energy

1. Institutional Commitment to Clean Energy Transition

Amity University Rajasthan (AUR) is strongly committed to SDG-7: Affordable and Clean Energy, prioritizing sustainable campus development through renewable energy adoption, energy-efficient infrastructure, and responsible consumption practices.

The university aligns with:

- India's National Solar Mission
- National Action Plan on Climate Change (NAPCC)
- Green Campus Initiative & Net-Zero Roadmap
- Global UN SDG Framework & Paris Agreement Vision

AUR's clean-energy mission aims to reduce carbon emissions, minimize dependence on non-renewable energy sources, and inculcate a culture of energy responsibility and climate leadership among students, faculty, and the community.

2. Renewable Energy Adoption & Smart Campus Systems

AUR has implemented hybrid solar energy solutions and intelligent power-management systems to optimize energy performance. Key initiatives include:

Solar Power Infrastructure (50% Energy Supply from Solar)

- University derives ~50% of total energy requirement from solar power
- Rooftop solar installations across academic & administrative buildings
- 500 kW Ground-Mounted Solar Tracking System that automatically tracks sunlight direction, maximizing efficiency and power generation
- Grid-synchronization and government-approved net-metering connection
- Real-time monitoring system to track generation efficiency & CO₂ reduction

Smart Energy Conservation Technology

- Sensor-based lighting system in corridors, academic blocks & common areas
- Day-light optimization in classrooms and laboratories
- Intelligent power-factor & load management modules



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3. LED Transition & Energy Efficiency Practices

AUR has undertaken phased conversion of conventional lighting systems to energy-efficient LEDs:

Initiative	Progress
Campus streetlights converted	100% (Main gate to ABS circle)
Indoor corridor lights converted	Phase-1 completed
Overall LED transition	65% complete and ongoing
NH-11 LED street lighting support	Installed 1.5 km stretch

LED lighting delivers:

- 80% higher energy efficiency
- Lower heat emissions & extended lifespan
- Reduced electricity demand and campus carbon footprint

4. Carbon-Smart Campus Design & Environment Stewardship

AUR is committed to creating a **low-carbon institutional environment** through:

- Renewable energy systems
- Green building design principles
- Sustainable plantations and biodiversity enhancement
- Climate-responsive campus architecture
- Water recycling (STP & ETP) supporting landscape irrigation

These interventions contribute to a **healthier, eco-responsible campus ecosystem** and directly support academic productivity, innovation, and student well-being.

5. Quantifiable Impact & Energy Metrics

Parameter	Status
Solar power contribution	~50% of total consumption
Ground-tracker solar capacity	500 kW
Campus LED conversion	65% achieved, expanding to 100%
Energy audits	Conducted periodically
CO ₂ emissions avoided	Documented in solar energy system data



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6. Awareness, Training & Academic Integration

AUR integrates clean-energy education through:

- Student workshops & energy-conservation campaigns
- Renewable energy research projects
- Faculty seminars on sustainable engineering & environmental studies
- Green-Ambassador student volunteering initiatives

The university promotes responsible consumption habits and encourages student participation in energy-sustainability innovation challenges and projects.

7. Future Roadmap (2025–2030)

AUR plans to expand energy sustainability through:

- 80% solar-powered campus implementation plan
- Smart-building automation & IoT-based energy monitoring
- Establishment of Clean Energy Research & Innovation Hub
- Green certificate & carbon-credit participation
- Annual Energy Conservation Week & Clean Energy Summit

Conclusion

AUR's proactive adoption of renewable energy, smart power systems, and sustainable campus planning demonstrates strong institutional leadership in supporting Affordable & Clean Energy (SDG-7). The university is committed to evolving as a carbon-conscious, energy-efficient, and climate-positive academic institution, fostering a clean energy culture that extends from the campus to the community.