



2023-2024 SDG7 Clean and Affordable Energy Report

Policy Statements

1. **Energy Efficiency & Low-Carbon Development:** All campus buildings comply with national and international energy standards, integrating renewable energy and reducing carbon emissions.
2. **Divesting from Carbon-Intensive Investments:** The university gradually shifts investments away from coal, oil, and high-emission industries toward clean energy and low-carbon technologies.
3. **Supporting National Clean Energy Development:** Provides research, policy advice, and technological solutions to support Egypt's energy and sustainability strategies.
4. **Promoting Low-Carbon Innovation:** Supports students, faculty, and startups in developing energy-efficient and sustainable technologies.

Key Actionable Measures

- **Buildings & Equipment:**
 - Energy-efficient design, LED lighting, HVAC optimization, smart systems, thermal insulation.
 - Renovation and retrofitting of existing facilities.
- **Energy Monitoring & Carbon Reduction:**
 - Smart meters, annual energy and carbon reporting, behavioral programs to reduce energy use.
 - Future installation of solar energy systems in collaboration with AOI.
- **Water & Resource Management:**
 - Greywater recycling, leak detection, sustainable material use, waste segregation.
- **Community & Awareness:**
 - Workshops, seminars, campaigns targeting students, staff, and local communities.
- **Academic & Industrial Engagement:**
 - Sustainability-focused courses in engineering and smart systems.
 - Industrial consultancy for energy efficiency and low-carbon solutions

Current Status (2023–2024)

- **Energy Consumption:** 8,982.8 GJ (no low-carbon energy yet).
- **Carbon Emissions:** 2,099.63 metric tons CO₂.
- **Energy-Efficient Equipment Usage:** Average 91.5% (LEDs, fans, computers, projectors, refrigerators).



Future Plan Highlights

1. **Full Automation & Smart Building Integration:** Central monitoring and advanced Building Management Systems (BMS).
2. **Enhanced Energy Efficiency:** Retrofitting HVAC, improved insulation, advanced energy meters, LED lighting with sensors.
3. **Water Efficiency:** Greywater reuse, smart irrigation, leak detection.
4. **Indoor Environment Quality:** Optimal air quality, thermal comfort, noise control, daylighting.
5. **Monitoring & Reporting:** Quarterly energy performance collection, annual review, public reporting.
6. **Community Engagement & Innovation:** Support low-carbon startups, research, awareness campaigns, national collaborations.