SDG 11



Indicator 11.4.8

Planning Development - New Build Standards

The university's approach to new construction and modifications is based on adherence to the Egyptian Code for Building (الكود المصري في البناء).

National Certifying Body: The code is issued by the Housing and Building National Research Center **(HBRC)**, which is the official governmental body responsible for setting standard specifications and acceptance criteria for the design and execution of facilities in Egypt. While the Egyptian Code is the foundational standard, the HBRC is also involved in preparing and updating more specific codes, including the **Environmentally Friendly Green Building Code** and the **Code for Rationalizing Energy Use in Residential and Commercial Buildings**, indicating an icreasing national focus on sustainability in construction.

Operational Sustainability and Energy Efficiency Initiatives	While the primary standard is the Egyptian Code, the university demonstrates a proactive commitment to key sustainability goals, particularly in the area of **energy generation and consumption management**. This goes beyond passive building design and focuses on active sustainable operations.

Initiative	Implementation Detail	Sustainability Impact
Solar Power Plant	Contracted with a specialized company to establish a **solar photovoltaic (PV) power station** on university rooftops, covering an area of **3,000 m²** (expandable).	**Reduction in Carbon Footprint:** Shifts energy reliance from less-sustainable sources (likely generators) to a **clean energy source**. This is a direct contribution to climate action
Annual Energy Production Goal	The solar station is anticipated to generate **336,000 kWh annually**	**Energy Security & Financial Savings:** Provides a reliable, predictable source of power, decreasing dependence on external utility grids and reducing overall operating costs.
Lighting Replacement	**Continuous replacement** of traditional lighting fixtures with **lower electricity consumption alternatives** (e.g., LED or other energy-efficient lighting).	**Energy Demand Reduction:** A core strategy for reducing overall electricity consumption across the campus infrastructure.
Automated Lighting Controls	**Expansion in the use of presence and motion detectors** (sensors) in spaces.	**Energy Waste Minimization:** Ensures lights are only used when spaces are occupied, directly combating energy waste in unoccupied areas, which is a common issue in large academic facilities.
Power Infrastructure	The university primarily relies on **private power stations** (generators) for energy, indicating a high demand for uninterrupted power. This high operational reliance on generators makes the transition to solar energy critical for environmental improvement.	**Operational Resilience:** The private power stations provide essential reliability for continuous academic, research, and administrative services, but the solar project provides the necessary path toward **decarbonization** of this critical energy supply.

Maintenance and Safety Compliance

The university also ensures a high degree of operational and structural compliance that aligns with best practices for infrastructure longevity and asset protection, a key element of long-term sustainability.

- **Routine Maintenance:** All electrical systems, equipment, and panels undergo **periodic maintenance and inspection**.
- **Asset Protection:** A **central FM200 fire suppression system** is installed to protect all main power distribution boards and electrical panels. This is an important detail as **FM-200** (Heptafluoropropane) is a **clean agent** fire suppressant that is safe for equipment and leaves no residue, minimizes asset damage and downtime, and has **zero Ozone Depletion Potential (ODP)**, making it a more environmentally responsible choice compared to older halocarbon agents.