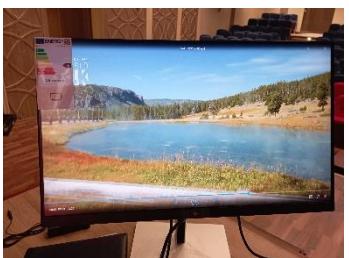# Plan to reduce energy consumption
2023-2024

Current Energy Efficiency Baseline

Menoufia National University uses a wide range of energy-efficient appliances across all buildings, including LED lighting, energy-saving refrigerators, computers, and fans. The average energy-efficiency level achieved across campus is 91.5%, as shown in the table below.

Energy Efficient Appliances Usage

Example of Energy Efficient Appliances Usage: Use of LED lighting and lamps with light detection (Menoufia National University)

Example of Energy Efficient Appliances Usage: system (Menoufia National University)

Description:

The university uses energy-efficient appliances across the campus, including LED lighting, energy-saving refrigerators, fans, and computers, to reduce electricity consumption and promote sustainability.

Example:

Appliance	Total Number	Total Number of Energy-Efficient Appliances	Percentage
LED Lamp	12000	10000	83%
Fan	600	600	100%
Computers	1200	1200	100%
Display Screens	200	180	90%
Projectors / Data Show	50	45	90%
Refrigerators	100	90	90%
		Average Percentage	**91.5%**

Plan to Reduce Energy Consumption

1. **LED Upgrade Program**
   Upgrade the remaining non-LED bulbs to achieve full 100% LED coverage across all campus buildings.
2. **Smart Lighting System**
   Install motion sensors, daylight sensors, and automatic timers in classrooms, corridors, and administrative offices.
3. **Energy-Efficient Equipment Replacement**
   Replace old projectors, screens, and refrigerators with high-efficiency models (target ≥95% efficiency).

   Integration of renewable energy systems (solar panels in collaboration with AOI)

4. **HVAC and Ventilation Optimization**
   o Regular maintenance
   o Temperature control policy (e.g., 24–25°C)
   o Smart scheduling during off-hours
5. **Awareness and Behavior Change Program**
   Campus-wide campaigns encouraging switching off lights and devices when not in use.
6. **Energy Monitoring System**
   Install sub-meters and create monthly energy performance reports to track progress.