

# SUSTAINABLE DEVELOPMENT GOALS

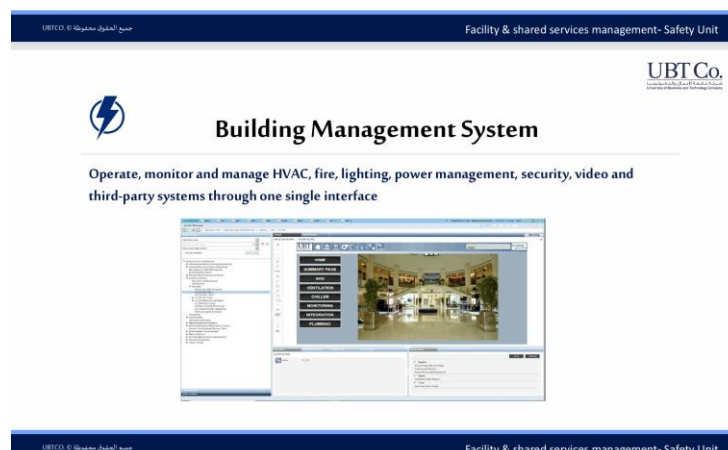


**7.2.5 Undergo energy reviews to identify areas where energy waste is highest?**

Yes, regularly conducts detailed energy reviews to identify areas with the highest levels of energy waste. These reviews are part of the university's commitment to energy conservation and align with its dedicated energy policy aimed at minimizing waste and optimizing efficiency. During these reviews, UBT assesses energy usage across different buildings, focusing on key areas where improvements can yield substantial savings. This includes monitoring HVAC systems, lighting, and equipment performance, as well as examining behavioral factors contributing to energy use.

A central component of these energy reviews is the use of Building Management Systems (BMS) installed in newer buildings, which employ light and heat sensors to track and regulate energy consumption. The data gathered from the BMS allows UBT to precisely pinpoint areas with high energy consumption and take corrective actions (See Evidence No. 1). In older buildings, UBT has begun implementing motion-detection sensors and light sensors to monitor and reduce energy use, starting with a pilot program that measures reductions achieved through sensor integration .

The insights gained from these reviews drive UBT's strategies for implementing energy-saving measures across campus. For example, the university upgrades HVAC equipment to more efficient models, installs motion-sensing lights, and promotes energy-conscious behaviors among staff and students. By conducting regular energy reviews, UBT can ensure that its energy management practices continue to evolve, addressing high-waste areas effectively and promoting long-term sustainability (See evidence No.1).



**For UBT's older campus buildings that do not yet have a Building Management System (BMS) integrated, electricity consumption is tracked through data from utility bills and metered records (See evidence No. 2). This approach enables UBT to monitor energy usage even in the absence of automated systems. By analyzing utility data and consumption records, the university can still identify high-consumption areas and pinpoint opportunities for energy-saving interventions.**

**UBT has approved a research project focused on developing a digital twin of the campus, enabling comprehensive energy audits and providing real-time monitoring and assessment of energy usage patterns. This digital twinning technology will allow UBT to track energy flows more accurately, uncover areas with the potential for improvement, and make data-driven decisions for energy conservation ( See Evidence No. 3 Digital twin project (See Evidence No. 3 Digital twining of UBT campus)**

**These records provide valuable insights into patterns of energy use, highlighting peak periods and areas with unusually high consumption. Based on this data, UBT can make informed decisions, such as scheduling upgrades to more energy-efficient systems, prioritizing areas for retrofitting with motion sensors, and identifying specific spaces where lighting or HVAC adjustments can be made. This data-driven approach allows UBT to optimize energy use on the older campus and supports its broader sustainability goals.**