Evidence(s)

THE-Impact Ranking

HEI: TRIDENT ACADEMY OF TECHNOLOGY
COUNTRY: INDIA
WEBSITE: https://tat.ac.in/activities/
SDG 7: AFFORDABLE AND CLEAN ENERGY

7.2.2 Upgrade Buildings to Higher Energy Efficiency:

Trident College has prioritized alignment with national energy conservation policies. As part of this commitment, the institution systematically replaces non-compliant equipment annually. Energy efficiency standards are regularly reviewed and adjusted as funding allows. This proactive approach demonstrates the college's dedication to supporting national energy conservation initiatives and fostering a sustainable, environmentally responsible campus environment.

Plate 7.2.2.a. Smart Class Room

Plate 7.2.2.b LED light in academic building

Plate 7.2.2.c. Centralized AC power consumption

Plate 7.2.2.d. Common Auditoriom

Evidence(s)

THE-Impact Ranking

HEI: TRIDENT ACADEMY OF TECHNOLOGY
COUNTRY: INDIA
WEBSITE: https://tat.ac.in/activities/
SDG 7: AFFORDABLE AND CLEAN ENERGY

Plate 7.2.2.e. Solar panel system

Plate 7.2.2.f. The Atmospheric Water Generator

Description: Trident College hosts an annual conference dedicated to energy conservation and carbon reduction, assessing strategies for replacing existing equipment with energy-efficient alternatives in the coming year. Each year, a designated budget is allocated for replacing energy-intensive equipment, aiming to achieve at least a 10% annual improvement in overall energy efficiency. This proactive strategy underscores Trident College's commitment to sustainability and its dedication to creating an environmentally responsible campus.

Here are the key energy-saving and carbon-reduction measures implemented at Trident College from 2023 to 2024:

Appliances	Total Number	Total number energy efficient appliances	Percentage (%)
LED bulb	93	93 added in between 2023-24(LED Lamps)	100%
BLDC FAN	326	326 added in between 2023-24(BLDC Motor)	100%
HVAC	36		

- **Smart Classroom Ceiling Fan Upgrade (Plate 7.2.2.a):** Trident College replaced outdated ceiling fans, each consuming 75 watts, with advanced BLDC motor fans. These new fans consume only 25 watts of power, contributing to a significant reduction in energy usage.
- **LED Lighting in Academic Buildings (Plate 7.2.2.b):** The college has implemented IoT-enabled centralized washing machines throughout the campus, optimizing water and electricity usage to align with sustainability goals and promote eco-friendly laundry practices.
- **Centralized AC Power and Sustainable Building Materials (Plate 7.2.2.c):** The campus buildings are constructed with sustainable materials such as laterite stone and fly ash, repurposing local

Evidence(s)

THE-Impact Ranking

HEI: TRIDENT ACADEMY OF TECHNOLOGY
COUNTRY: INDIA
WEBSITE: https://tat.ac.in/activities/
SDG 7: AFFORDABLE AND CLEAN ENERGY

resources like soil and laterite from excavations. Laterite bricks, which offer natural cooling and thermal insulation, help maintain comfortable indoor temperatures, particularly in warmer climates.

- **Maximizing Natural Light in Common Auditorium (Plate 7.2.2.d):** Common spaces, including staff rooms, are designed to maximize the use of natural daylight, improving occupant comfort and reducing the need for artificial lighting during daytime hours
- **Solar panel System (Plate 7.2.2.f):** The college has implemented an upgraded 450kw solar panel system that minimizes use of thermal electricity, supporting the college's commitment to sustainable resource management.
- **The Atmospheric Water Generator (AWG) (Plate 7.2.2g):** It was installed at Trident College provides an innovative solution for water scarcity by extracting moisture from the air to produce clean drinking water of 80lit per day. This technology enhances the campus's sustainability efforts, offering a reliable water source while promoting environmental awareness among students. The AWG aligns with Trident's commitment to resource efficiency and eco-friendly practices.

These initiatives reflect Trident College's dedication to reducing its carbon footprint and fostering a campus environment aligned with principles of energy efficiency and environmental responsibility.