



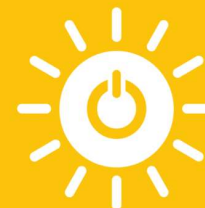
SUSTAINABLE DEVELOPMENT GOALS



Progress Report 2024-2025

Trident Academy of Technology

7 AFFORDABLE AND
CLEAN ENERGY





SDG 7 AFFORDABLE AND CLEAN ENERGY

Plan to Reduce Energy Consumption

Trident systematically replaces high-consumption devices and implements 10% annual energy reduction targets. Measures include 75 solar LED streetlights, 35W ceiling fans, and power-efficient pumps. Regular maintenance and restrictions on high-energy appliances have led to a 15% reduction in power use since 2020.

Energy Wastage Identification

The college holds annual energy review meetings and conducts external energy audits by SAB Energy Services. Air conditioning remains the highest energy consumer. Power factor correction measures maintain efficiency near unity, minimizing energy losses.

Divestment Policy

The Divestment Policy ensures financial ethics by excluding investments in fossil fuels, weapons, or industries causing environmental harm. It emphasizes transparency, stakeholder feedback, and alignment with sustainability goals.

Energy Usage per Square Meter

Between July 2024 and June 2025, Trident consumed 1,234,870 kWh (4,445.532 GJ) across 20,234.3 m², averaging 0.261 GJ/m². This reflects efficient energy management and optimized infrastructure performance.

Programs for Local Community

Trident organized 'Urja Mela'-an energy fair promoting awareness on energy efficiency and clean energy practices among students, local residents, and businesses. Outreach programs and expert conclaves strengthened community engagement in sustainability.

100% Renewable Energy Pledge

By 2030, Trident aims to transition fully to renewable energy via solar power generation. Initiatives include EV adoption, zero-emission vehicles, energy-saving awareness drives, and curriculum integration of clean energy concepts. The pledge demonstrates Trident's long-term commitment to achieving a carbon-neutral and sustainable campus.

Energy Efficient Renovation and Building

Trident Academy of Technology prioritizes energy efficiency by upgrading infrastructure to use 100% energy-efficient appliances, including 1,210 LED bulbs, 326 BLDC fans, and 56 high-ISSER-rated AC units. Solar streetlights and natural ventilation in classrooms further reduce dependency on grid electricity. Annual grid power usage was 57,729 kWh, offset by 1,28,080 kWh solar generation, resulting in near-zero net grid dependency.

Upgrade Buildings to Higher Energy Efficiency

The institution follows national energy conservation policies and replaces non-compliant equipment annually. A 450kW solar panel system, BLDC fans, and LED lighting systems have been installed across buildings. Smart classrooms and natural lighting in auditoriums ensure energy savings, while atmospheric water generators produce 80 liters of clean water daily using minimal energy.

Carbon Reduction and Emission Reduction Process

Trident reduces its carbon footprint through eco-friendly transport, EV charging stations, and solar-powered street lighting. Annual CO2 emissions are 1,234.36 metric tons, primarily from electricity and LPG. Regular plantation drives and a green audit further strengthen campus sustainability.

