



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 University Measures Towards Affordable and Clean Energy:

7.2.1 Energy Efficient Renovation and Building:

Trident College, located in the state of Odisha, India, places a strong emphasis on energy efficiency and environmental responsibility. The institution actively promotes the utilization of energy-efficient equipment.

Furthermore, Trident College has undertaken a significant overhaul of its aging infrastructure. It has instituted a comprehensive policy to ensure that all new constructions and renovations adhere to stringent energy efficiency standards. This proactive approach has yielded several benefits, including a notable reduction in carbon emissions, the optimization of electricity consumption, and a significant decrease in wastage, reflecting the college's commitment to sustainable practices and environmental stewardship.

Energy Efficient Appliances Usage in College Building (Plates.1-7)



Plate 1. A/C ISSER rating>4.5



Plate 2 Solar street light



Plate 3 LED bulb in computer lab building



Plate 4 Well ventilated class room



Plate 5 Natural day light in library room



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Plate 6 Well ventilated canteen with natural light



Plate 7 Well ventilated hostels



Plate 8 BLDC fan



Plate 9 ALL CLASSROOM

Description:

Trident College places great emphasis on monitoring and reducing energy consumption across its campus. The institution has implemented a variety of energy-efficient measures to achieve this goal. Below are the key initiatives:

1. Energy meters are strategically placed in every building on campus to continually monitor and regulate electrical consumption.
2. Notably, all air conditioning units have been upgraded to models with an impressive ISSEER rating exceeding 4.5, enhancing their energy efficiency (See Plate 1).
3. The campus is equipped with solar street lights, contributing to energy savings through the use of renewable resources (See Plate 2).
4. LED lighting has been widely adopted throughout the campus, including in academic, non-academic, hostel, and common areas, ensuring energy-efficient illumination (See Plate 3 & Plate 5). The college currently utilizes 1,210 LED bulbs and 358 ceiling fans, all with a power capacity below 40 watts.



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5. Trident College has implemented well-ventilated classrooms, significantly reducing the need for artificial lighting and cooling during the day (See Plate 4).
6. The use of natural light in various campus spaces, such as the library and the canteen, has notably decreased reliance on artificial lighting, particularly during daylight hours (See Plate 5 & Plate 6).
7. The hostels are designed with natural ventilation, optimizing energy use and providing a comfortable living environment (See Plate 7).
8. Trident Academy of Technology ensures that all classrooms are fully equipped with energy-efficient LED lighting. (See Plate 8)

By implementing these energy-efficient measures, Trident College aims to reduce its environmental footprint and promote sustainability across the campus.

Overall we are using nearly 100 % of energy efficient appliances in our university

Appliance	Total Number	Total number energy Efficient appliances
Lamps	1210	1210 LED Lamps)
Fans	815	326 (BLDC Fan: Consume power less than 25 W)
Solar and LED street light	50	50
AC (ISSER > 4.5)	56	56

Electricity Usage per Month (in Kilowatt hour)

Description:

Month	Grid unit	Amount	Solar unit	Net Metering unit	amount
Jul-24	7100	6.5	2,340	7100	46150
Aug-24	7100	6.5	2,340	7100	46150
Sep-24	7100	6.5	2,340	7100	46150
Oct-24	7100	6.5	2,340	7100	46150
Nov-24	1260	6.5	2,340	1260	8190
Dec-24	1413	6.5	2,340	1413	9184
Jan-25	700	6.5	2,340	700	4550
Feb-25	200	6.5	2,340	200	1300
Mar-25	6439	6.5	2,340	6439	41853
Apr-25	6439	6.5	2,340	6439	41853
May-25	6439	6.5	2,340	6439	41853
Jun-25	6439	6.5	2,340	6439	41853
SUM	57729		128080	57729	375236



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Growth and Trends

Year-over-Year Growth:

1. From **July 2024 to June 2025**, Trident Academy of Technology recorded a total **grid power consumption of 57,729 units**, amounting to **₹3,75,236** at a rate of **₹6.5 per unit**. During the same period, the **solar generation was 1,28,080 units**, reflecting the institution's strong commitment to renewable energy utilization. The **net metering balance** also stood at **57,729 units**, indicating an effective offset of grid electricity through solar power generation.
2. The data shows consistent grid usage of around **7,100 units per month** from July to October 2024, followed by a significant reduction between **November 2024 and February 2025** due to lower campus activity. Power consumption gradually increased again from **March 2025 onward**, stabilizing around **6,439 units per month**.
3. Overall, Trident Academy of Technology effectively leveraged solar energy to minimize dependency on the grid, contributing to substantial cost savings and promoting sustainable campus operations.

These points highlight the energy consumption patterns, cost trends, and efficiency improvements at Trident College.

Awards for Promoting Green energy and for energy saving measures.


<p>EHS alliance</p> <h3>CERTIFICATE</h3> <p>PRESENTED TO</p> <p>TRIDENT ACADEMY OF TECHNOLOGY F-2, Chandaka Industrial Estate In front of Infocity, Infocity Chandrasekharpur, Bhubaneswar Odisha - 751024</p> <p>That has been assessed by EHS Alliance Services for the comprehensive study of Energy Audit on institutional working framework to fulfill the requirement of</p> <h3>ENERGY AUDIT</h3> <p>ACADEMIC YEAR 2022-23</p> <p>The energy-saving initiatives carried out by the institution have been verified in the report submitted and were found to be satisfactory.</p> <p>The efforts taken by management and faculty towards all types of energy used in the institution and sustainability are highly appreciable and noteworthy.</p> <p><i>[Signature]</i>  SIGNATURE DATE OF AUDIT</p> <p>11.05.2024</p> <p><small>EHS ALLIANCE SERVICES, PLOT A-72, SURYA VIHAR, GURUGRAM, 122001 WWW.EHSALLIANCE.IN BUSINESS@EHSALLIANCE.IN EHSALLIANCE@GMAIL.COM</small></p>	<p>EHS alliance</p> <h3>CERTIFICATE</h3> <p>PRESENTED TO</p> <p>TRIDENT ACADEMY OF TECHNOLOGY F-2, Chandaka Industrial Estate In front of Infocity, Infocity Chandrasekharpur, Bhubaneswar Odisha - 751024</p> <p>Has been assessed by EHS Alliance Services for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of</p> <h3>GREEN AUDIT</h3> <p>ACADEMIC YEAR 2022-23</p> <p>The green initiatives carried out by the institution have been verified on the report submitted and was found to be satisfactory.</p> <p>The efforts taken by the management and the faculty towards environment and sustainability are appreciated and noteworthy.</p> <p><i>[Signature]</i>  SIGNATURE DATE OF AUDIT</p> <p>11.05.2024</p> <p><small>EHS ALLIANCE SERVICES, PLOT A-72, SURYA VIHAR, GURUGRAM, 122001 WWW.EHSALLIANCE.IN BUSINESS@EHSALLIANCE.IN EHSALLIANCE@GMAIL.COM</small></p>
Plate1. Energy audit report	Plate2. Green audit report



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Plate3. Environment audit report	

Policy in place for ensuring all renovations or new builds are following energy efficiency standards