University: Sri Sri University
Country: India
Web: www.srisriuniversity.edu.in
SDG7: AFFORDABLE & CLEAN ENERGY

7.2 University Measures Towards Affordable and Clean Energy:

7.2.4 Plan to Reduce Energy Consumption:

Have an energy efficiency plan in place to reduce overall energy consumption

Plate 7.2.4a. Solar based street light **(75 nos)**

Plate 7.2.4b 8kW Solar panel

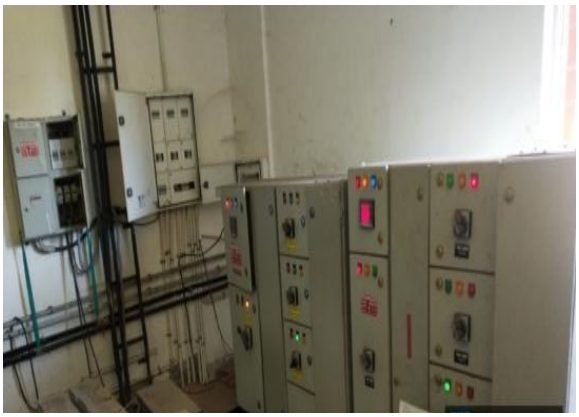

Plate 7.2.4c. Electric control room

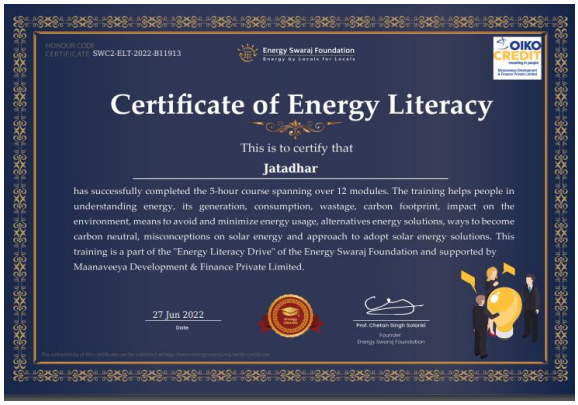

Plate 7.2.4d. Energy literacy certificate by Energy Swaraj

Plate 7.2.4e. Centralized IOT based Washing Machine

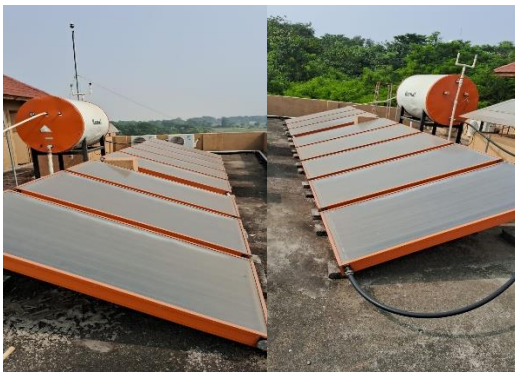

Plate 7.2.4f. Air soured water heater

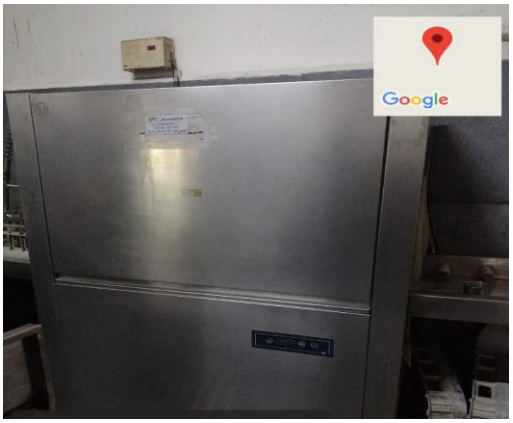

Plate 7.2.4g. Common dishwasher in hostel area

Plate 7.2.4h. GAIL petroleum natural gas

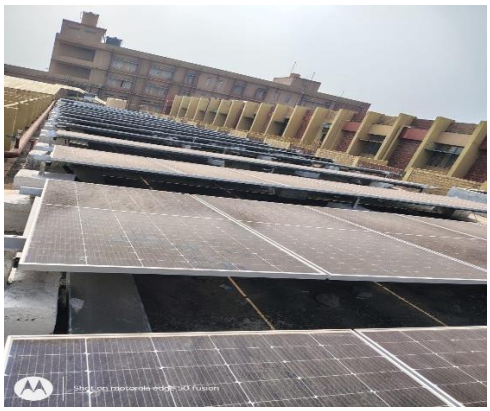

Plate 7.2.4i. Solar plant installation on the roofs of academic buildings of Sri Sri University

Description:

Sri Sri University (SSU) has been committed to a proactive approach to energy efficiency and the reduction of power consumption through an ongoing annual replacement program. The university systematically identifies and replaces old, energy-intensive, and low-efficiency equipment, tailored to the specific needs of its buildings. This approach consistently results in a 10% reduction in

electricity consumption each year. SSU has diligently pursued this energy-saving policy since 2020, and as of 2024, the cumulative electricity savings have exceeded 30% of the annual consumption.

The energy-saving plans for 2024 are as follows:

1. Solar-Powered Street Lights (Plate 7.2.4a): The campus features 105 solar-powered streetlights, collectively generating about 105 units daily and contributing roughly 38,325 units annually. This transition to solar-powered lighting enhances energy efficiency and sustainability.
2. Solar Plant Installation (Plate 7.2.4b): An 8kW solar plant has been installed within the university campus, generating approximately 35 units of electricity per day, totaling 13,000 kW per year. (Plate 7.2.4.a).
3. Smart Electric Control Room (Plate 7.2.4c): The implementation of a smart electric control room enhances the efficiency and management of electrical systems, reducing wastage and promoting a more sustainable energy infrastructure.
4. Energy Conservation Awareness (Plate 7.2.4d): SSU actively raises awareness among staff and students to prevent energy wastage through the Energy Swaraj training program. This initiative empowers individuals to make energy-efficient choices.
5. IoT-Based Washing Machines (Plate 7.2.4e): IoT-based washing machines have been adopted in all hostels, contributing to reduced energy and water consumption during laundry processes.
6. Air Sourced Water Heaters (Plate 7.2.4f): Air-sourced water heaters are utilized in the hostels, effectively conserving a substantial amount of energy, particularly during the winter season. This innovative technology saves approximately 25 units of electricity per day, equivalent to 3,000 units annually.
7. Automatic Dishwashers (Plate 7.2.4g): Automatic dishwashers are employed to minimize water usage, reducing the dependence on water pumps and promoting water efficiency.
8. Natural Gas Adoption (Plate 7.2.4h): LPG has been replaced with petroleum natural gas, a more environmentally friendly energy source that aligns with sustainability objectives. These initiatives collectively demonstrate SSU's ongoing commitment to energy conservation and sustainability, contributing to a greener and more environmentally responsible campus.
9. Sri Sri University achieved a daily solar generation peak of 2,998 kWh. Annually, this amounts to approximately 35,976 kWh. Notably, the Shruti and Kirti buildings are major contributors, generating about 1,700 kWh and 1,200 kWh per day, respectively. This substantial annual solar capacity reinforces the university’s commitment to sustainable energy practices and campus-wide energy efficiency.
10. Smart Classroom Automation: Future Implementation of a smart classroom model to intelligently control lighting and fans, optimizing energy use based on occupancy and ambient conditions

Few more steps taken by Sri Sri University to reduce energy consumptions are

a. Restricted use of high energy consuming appliances in student hostels and among the staff rooms.
b. Zero Hour observed during 12.30 PM to 2 PM, which saves 2206.845 kWh every day from Shruti & Kirti academic building.
c. SSU has signed a MOU with TATA Power to produce 2 megawatt rooftop solar panels at the end of 2030.
d. From Jan 2024–Dec 24, we replaced 100 units of 70W conventional fans with 28W BLDC fans in Hostel Blocks 1 and 2.
e. From Jan 2024–Dec 24, we installed 550 units of 28 W BLDC fans in the newly constructed Hostels 6, 7, 8, and 9, instead of conventional fans.
f. In the Atreya Building (1st Floor), each classroom previously had 8 conventional 72W ceiling lights, which were replaced with 5 energy-efficient 36W LED fixtures. A total of 40 LED fixtures were installed.
g. 30 existing 30W solar street lights have been installed along the internal campus roads

h. A total of 500 kW rooftop solar units have been installed on the Shruti and Kirti buildings, in addition to an existing 8 kWp unit on the Vidya Block.
i. All campus street lights have been connected through a timer system for automated operation
j. The air conditioning system in the Shruti Building (Academic Block) is controlled through a timer, operating only from 9:30 AM to 5:30 PM
k. A new 450 kVAR APFC (Automatic Power Factor Correction) panel has been installed to reduce power losses and improve energy efficiency.
l. All hostels are equipped with centralized energy-saving hot water systems, and there is an existing solar water heater unit in the Studio Plus Block.

Conclusion:

The university's proactive annual replacement program has yielded significant results, achieving cumulative electricity savings exceeding 15% of annual consumption since its inception. The 2024-2025 initiatives were particularly impactful, featuring the installation of a 500 kW solar plant, the complete retrofitting of street lights with solar-based LED panels, and the establishment of a smart electric control room. These measures, alongside restrictions on high-energy appliances and the promotion of efficient devices, reinforce a culture of conservation.