

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation:

Solar energy

Biogas

Wheeling to the Grid

Sensor-based energy conservation

Use of LED bulbs/power-efficient equipment

The Government College of Engineering, Salem has taken initiatives not only contribute to cost savings but also align with global efforts to combat climate change and promote sustainable development.

Utilizing solar energy-based street lighting systems can significantly reduce electricity consumption and contribute to a safer environment on campus. Utilizing solar energy for water heating systems in hostels can lead to substantial energy savings and promote renewable energy utilization. Implementing solar energy based water tank overflow indicator designed by UG students in the electrical department shows the contribution towards resource management and conservation. Furthermore, using solar inverters to power lights and fans in the Office of the Head of the Department of Electrical Engineering reflects the practical application of renewable energy solutions within the institution itself.

The institution has taken initiatives for implementing Biogas plant for 150KG food waste. The Specification of biogas are Food waste- SS Material, 1 HP/0.75KW, 300Kg/hr Capacity, 2.3 Amps, 1440RPM Speed, Feed Pump – SS Material, 0.5ohm HP-1, Max Discharge Flow-501-1000 1PM, 2900RPM Speed, 5000 liters capacity of Slurry Collection Tank.

Solar power plant with 9.98Kwp Mono Modules has been installed.

LED bulbs are used at most of the locations across the campus to promote energy conservation. In the campus, air conditioning units with a five-star energy rating are utilized.

Slogans and wall posters indicating such as “switching off lights when not in use” or before leaving the classroom have been strategically placed to promote energy conservation awareness among students and faculty across the campus.

Solar Energy

Solar Energy



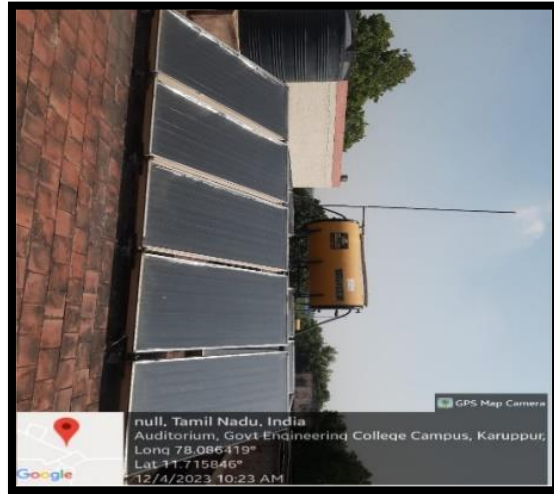
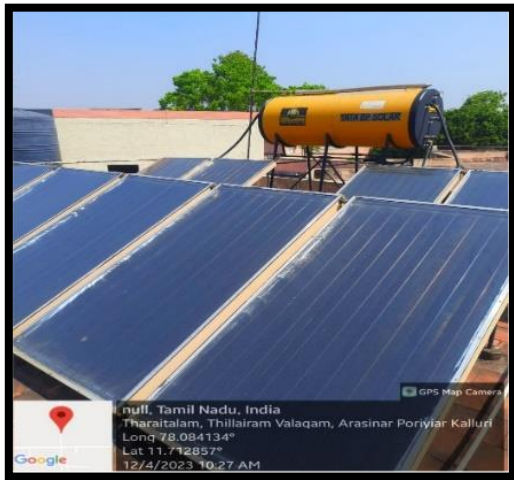
Figure 1: Solar energy-based street lighting system



Figure 2: Solar energy-based street lighting system



Figure 3: Solar energy-based street lighting system



Solar energy-based water heater.



Figure 4: Solar Inventor

Wheeling to the Grid

Wheeling to the Grid



Figure 5: Solar Panels and Inveter Display

Sensor-based energy conservation

Sensor-based energy conservation:



Figure 6: Sensor based energy conservation.

Water Tank Overflow Controller:



Figure 10: Water Tank Overflow Controller

Use of LED bulbs/power-efficient equipment

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Figure 7: Use of LED bulbs/power-efficient equipment



Figure 8: Use of LED bulbs/power-efficient equipment

Slogans and Wall Posters:

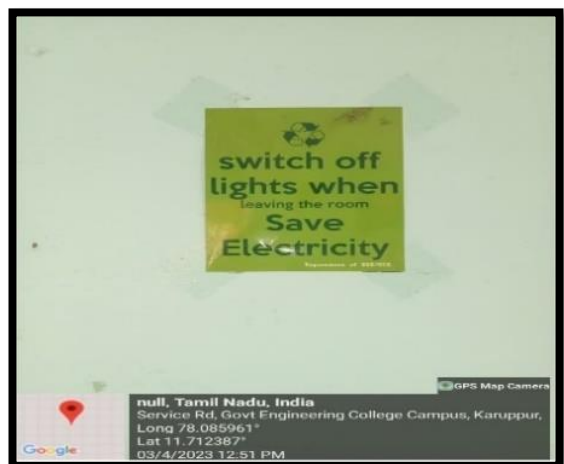


Figure 9: Slogans and Wall posters