

**LOYOLA COLLEGE OF SOCIAL SCIENCES
THIRUVANANTHAPURAM**



CRITERIA 7: Institutional Values and Best Practices

7.1.2- Alternate Sources of Energy and Energy Conservation Measures

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1. Introduction

Alternate Sources of Energy and Energy Conservation Measures

The Institution has facilities for alternate sources of energy and energy conservation measures. In order to conserve energy and tap **alternative sources of renewable energy**, the college has installed the following:

-) One 4KV solar power unit in the college.
-) One biogas plant
-) The College has adopted green policy for decades and currently transforming the light system to LED as and when the existing CFLs get fused.
-) Institution also follows a Power distribution system of Wheeling to the Grid, where solar energy is connected with the main electrical power.

In order to conserve energy, the college has adopted the following **energy conservation measures**:

-) Rainwater Harvesting Pits
-) Bore Wells
-) Efficient Electrical Circuits
-) Effective Water Storage Facilities

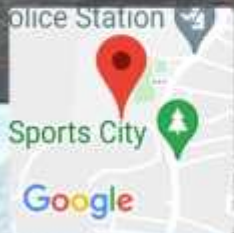
2. Alternative Sources of Energy Report

A. Solar Energy

Solar Panels

Institution facilitates resources for energy conservation and as part of it, Solar Panels are installed in the campus considerably reduces energy bills. One 4KV solar power unit has been installed in the campus. The entire college building depends on solar power for the energy requirements. There are 37 solar panel of size 5x3 ft. were installed. The total area covered is 555 sq. ft. The average energy produced is 67 units per day. The amount of electricity usage in the main building has decreased over the years, owing to the installation of solar panels. The whole building is run mostly on solar panels. We have made agreements with KSEB and also sell additional electricity through the grid.

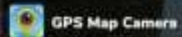




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B. BIOGAS PLANT

One biogas plant is installed on the campus to reduce cooking expenditure and to manage biogas. The bio waste from hostels and canteen is fed to the plant.



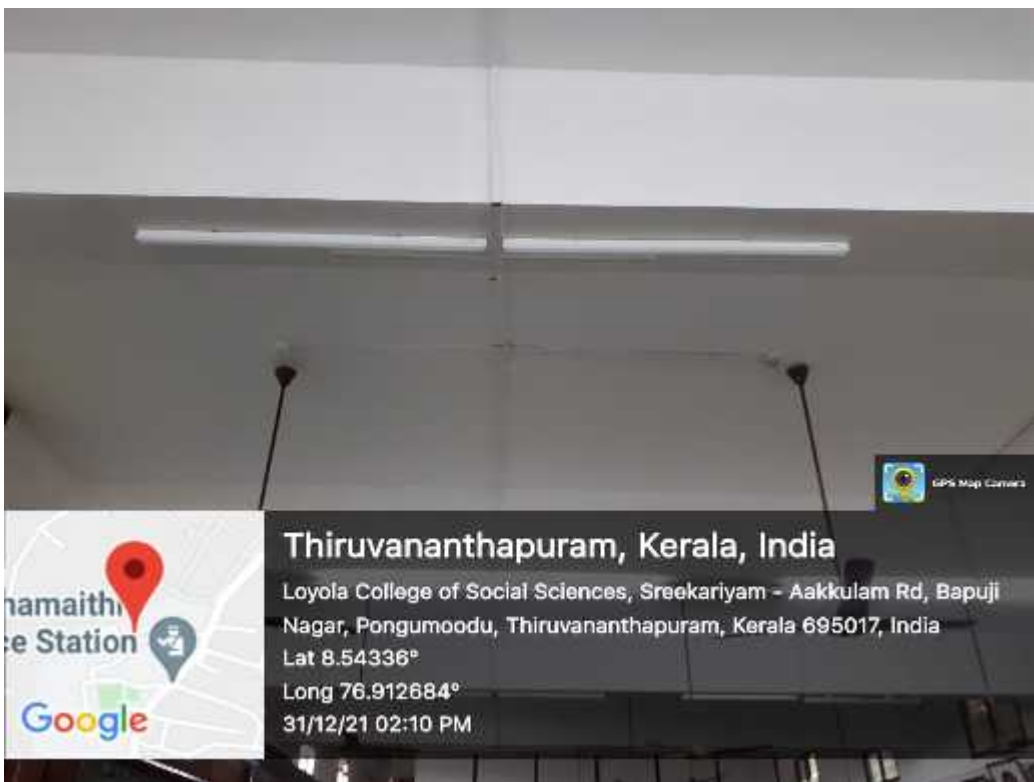
C. Wheeling to the Grid

Institution follows a Power distribution system of Wheeling to the Grid, where solar energy is connected with the main electrical power. The whole building is run mostly on solar panels. We have made agreements with KSEB and also sell additional electricity through the grid.



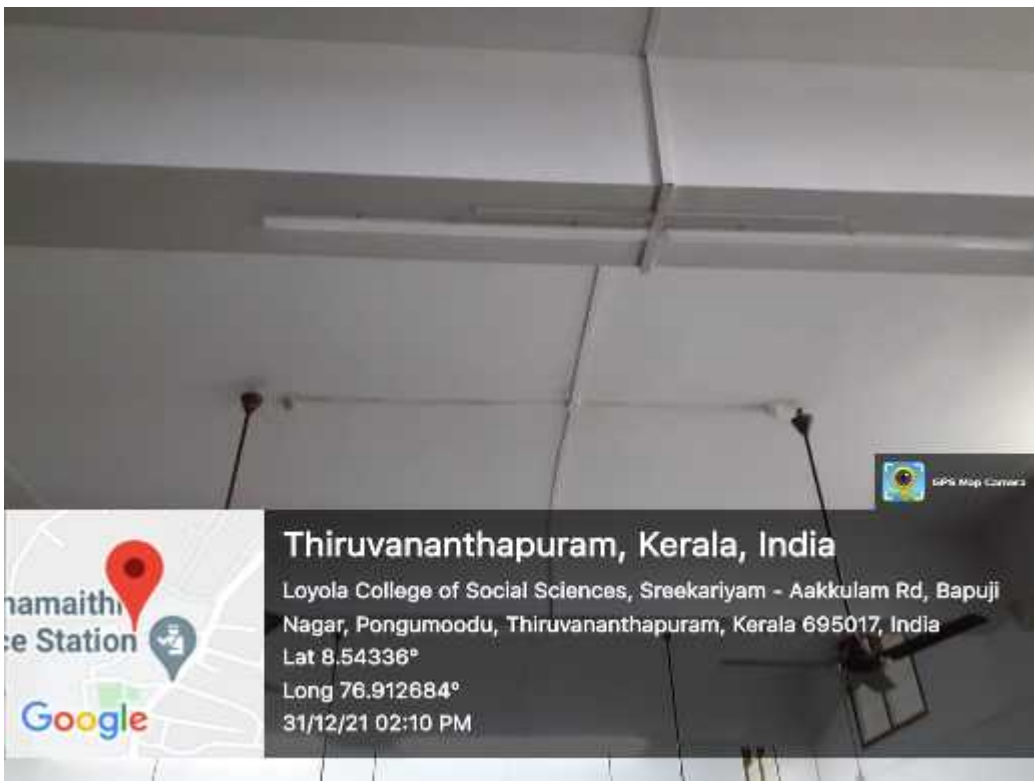
D. LED LIGHTS





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GPS Map Camera



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3. Energy Conservation Report

A. Rain Water Harvesting

The campus has a natural landscape very conducive to water shed management. The campus has an inbuilt catchment area where rain water is being collected during the monsoon. This helps to recharge the groundwater and thereby replenish the well that provides the campus with abundant water supply throughout the year. Rainwater harvesting pits are installed in our campus as part of environment management and biodiversity inspiring from the concepts of green Campus Initiatives. This Percolation pit is one of the easiest and most effective means of harvesting rainwater.



B. Bore well

Bore well is one of the main sources of water supply available in the institution. The available bore well is used for college building and boys' hostel. It is also used for gardening and landscaped areas in the campus.





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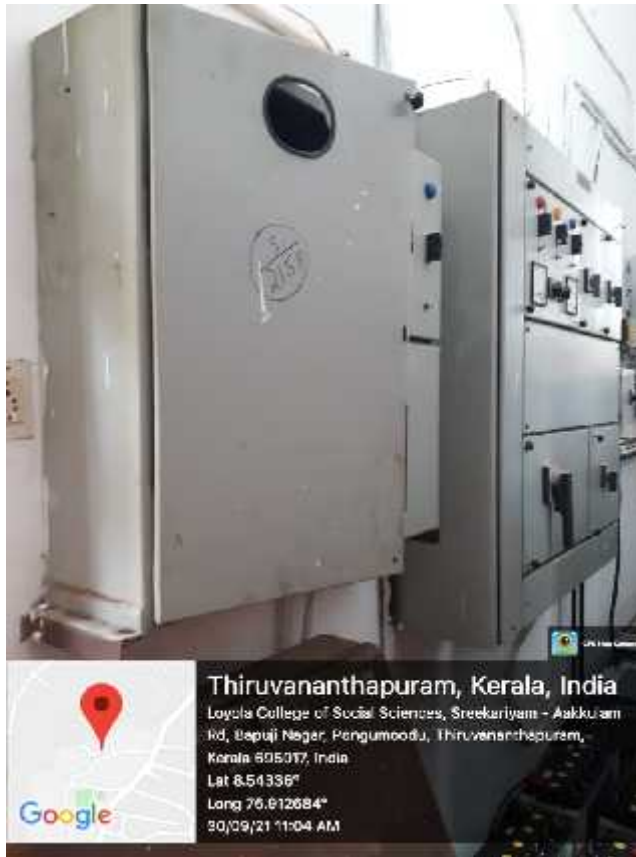
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C. Efficient Electrical Circuits





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D. Effective Water Storage Facilities

There are 20 water tanks in the college with a total capacity of 31000 litres:

-) Main Buildin 2 (5000 Litres x 2)
-) Men's Hostel 2 (6000 Litres x 2)
-) Ladies Hostel(1) 14 (500 Litres x 2)
-) Ladies Hostel(2) 12 (1000 Litres x 2)
-) Canteen 1



Water Tanks Installed in College Main Building



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Water Tanks Installed at top of the Men's Hostel



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Water Tank Installed above the College Canteen

Water Tanks Installed in Ladies Hostel



Water Purifiers

Water Purifiers are installed in different parts of the campus and it is also installed in Men's and Ladies hostel.



Water Purifier installed in Main building



Water Purifier Installed near College Library



Water Purifier installed in Men's Hostel



Water Purifiers Available in Ladies Hostel