

BEST PRACTICES – 2021-2022

Presentation of Best Practices- 02

1. Title of Practice:

Renewable Energy: Installation of On Grid Roof Top Solar Power Plant

2. Objectives

- To implement efficient and effective use of renewable energy
- To install solar power plant and generate power
- To utilize the power generated for institutional purpose
- To explore and optimally develop renewable energy resources in the state so as to meet the electricity demand in future
- To save electrical energy through energy efficiency measures and Demand Side Management

3. The Context

Renewable energy solutions are becoming cheaper, more reliable and more efficient every day. Our current reliance on fossil fuels is unsustainable and harmful to the planet, which is why we have to change the way we produce and consume energy. Implementing these new energy solutions as fast as possible is essential to counter climate change, one of the biggest threats to our own survival. In the light of this goal, that is to “ensure access to affordable, reliable, sustainable and modern energy for all”, the college has installed a 29KW On Grid solar system.

4. The Practice

Our College is very much concerned about energy conservation and minimal wastage of the same. Minimal consumption of energy is the saving factor of energy conservation in the campus. The Audits revealed the shortcomings of the energy conservation techniques in the college and also shed light on the wastage of energy. It was decided to reduce the wastage of energy with immediate effect. As a result the college increased the percent of its solar usage and took measures to increase its further. As a result the college installed a 29 kW On Grid Solar panels coupled to the State Electricity Board’s grid thus taking a huge leap towards the goal for sustainability.

This solar system generates 814 units during June-July and 1205 solar units were exported during July-August from the institution. Most of the electricity requirements of the college are met by these. Since this is an On-grid solar system, it is directly connected to the Government grid (TSSPDCL). The extra electricity generated using this solar system will run the load directly. When an on-grid solar panel system is producing more power than your load, then excess power can be fed into the utility grid through solar net-metering.

5. Evidence of Success

The success of this project could be achieved solely because of the support of the staff and students of this college along with the management. Energy conservation is given highest priority and solar energy and LED bulbs are used to minimize its consumption. Installation of the solar station has helped in cutting down the electricity bill to a great extent. Along with this, the replacement of LEDs has also contributed in reducing energy wastage. Energy conservation is given highest priority and solar energy and LED bulbs are used to minimize its consumption.

6. Problems Encountered and Resources required

One major problem with solar power is reliability. At best, a solar panel can produce electricity for 12 hours a day and a panel will only reach peak output for a short period around midday. Tracking panels that follow the sun can extend this prime generation period somewhat, but it still means that panels spend very little of the day producing at maximum capacity.



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