

**7.2.1 a - University policy in place
for ensuring all renovations / new
builds are following energy
efficiency standards
(Policy Document)**

POLICY DOCUMENT ON AFFORDABLE AND CLEAN ENERGY

In modern times, the generation of energy is disproportionate to the demand. Therefore, conservation of energy is a pivotal requirement to meet the demand. The minimal use of energy and finding alternative sources ensures its continuous supply for a long time. With this aspect in mind, energy conservation is done by using the most modern techniques.

Renewable Energy

The demand that is contracted from TANGEDCO is 1200 KVA and the backup power capacity is 2350 KVA(100%).

SOLAR POWER

Three roof top solar power plants are present inside the campus and the capacity of the first solar power plant is of 150 kWp commissioned in June 2014 at a cost of 1.32 Cr. The second solar power plant is of 100 kWp commissioned in October 2014 at a cost of 62 Lacs. New roof top Solar Power Plant III is of 300 kWp capacity and it was commissioned in October 2018 at a cost of 1.20 Cr. So the total power generated through the solar plant is 27,04,654 units till 31st July 2020 and our average monthly energy savings is 43%. Installation of additional 100 kWp Solar PV project on the RCC Roofs of School of Architecture Building and Innovation & Incubation Centre at a cost of Rs. 40 lakhs (work in progress). The campus also has an Online monitoring solar power system.

Solar Water Heaters

Three solar water heaters having a capacity of 36,500 litres which is equivalent to 365 numbers are installed. By this the saving of power is approximately Rs. 24 lacs per annum. Sub meters are provided in canteens, hostels and quarters

Solar Street Lights

Solar street lights have been installed in the campus by a 3rd year EEE students along with our estate electrical department team. It is installed towards staff quarters to Men's hostel road and Architecture block area.

Bio gas Plant

A bio gas plant of 50m³ capacity was commissioned in the Ladies Hostel in the month of June 2017 to recycle the food waste generated from the Hostel mess and Canteen in the campus. The bio gas generated is used in the Ladies Hostel mess kitchen.

The Institute has a bio gas plant in order to handle the food waste generated from hostel kitchens and canteens. It will generate 15-20m³/day from the plant and the same shall be used for the cooking purposes at hostel kitchen and canteens. The total project amount is 35 lakh and the Institute have contributed Rs.10 lakh.

Energy efficient Appliances in Campus

LED fixtures are being extensively used for all new interior renovation works in the campus. So far, 50.87 kW capacity of LED lights are fixed which provide around 70% of energy saving compared to conventional lighting.

With an emphasis to energy conservation, all split AC units purchased since the year 2012 are of BEE 5- star energy rating. The AC units are free from ozone depleting CFC.

Motion sensor lights are provided in computer science lab, staff cabins and toilets for energy savings.

The Institute is a proud owner of "Tissue Cultured bamboo plant" of variety "Beema." This is one of the super bamboo, developed by the Biotechnology lab, grown in greenhouse for six months and now it is ready for planting in the soil. The full growth of the bema bamboo is achieved only by providing the best care by us; both at the time of planting and growing it for at

least 4 to 5 years. Every plant when it is fully grown to its best growth generates over 300kg of oxygen every year, it is just sufficient for one person for a whole year.

The Institute has an Air Quality Sensor Station which helps to know the air quality.

Recognitions

ASSOCHAM award " University of the year for Eco-Friendly Sustainable Campus" for its eco-friendly self-sustaining efforts in conserving the environment. The award was presented by Dr. Mahendra Nath Pandey, Hon'ble Minister of Skill Development and Entrepreneurship, Govt. of India in 2020.

Weblink: <https://crescent.education/wp-content/uploads/2020/11/Crescent-Policy-Document-on-Affordable-and-Clean-Energy.pdf>