



THE - Impact Rankings 2021

Towards Sustainability...

7 AFFORDABLE AND CLEAN ENERGY



Ensure access to affordable, reliable, sustainable and modern energy for all

7.2.4 Plan to Reduce Energy Consumption

- VIT installed solar PV power plants to the total capacity of 500 kW to meet its energy requirements in 2015. The plant has so far produced 25.52 lakh units of electric power with a daily average of 2200 units. In the second phase another 620 kW capacity has been added in 2018.
- VIT has installed a biomass based power plant of 100 kW capacity which runs on biomass available in and around Vellore District. The power plant produces about 1500 kWh of power a day utilizing nearly 1.8 metric tons of Juliflora wood. This power is supplied to four hostels in the VIT campus. The producer gas generated in the gasifier can be used as dual fuel in the conventional DG set for power generation or for thermal application directly. Since its inception, the biomass power plant has produced 11.68 lakhs units of electricity
- VIT has installed a 300 m³ capacity biogas plant which uses the sludge from the wastewater treatment plant. The plant is under operation since December 2012. A 40 kVA biogas engine is operated utilizing the gas generated from the biogas plant and the evacuated power is supplied to run the wastewater treatment plant. This has resulted in conservation of about 20,000 kWh of power since 2013.
- VIT started phasing out CRT monitors from the year 2006 itself towards green computing initiatives. All the 5376 computer systems which VIT has, are equipped with LED / LCD monitors. VIT has adopted “Smart Data Centre” which significantly brings down the energy requirements of the data centre.

The Smart data centre adopted by VIT has 16 physical systems which accommodates 76 virtual centres, which brings down the power requirement to as low as 8 kW ($16 \times 500 \text{ W}$) from 38 kW ($76 \times 500 \text{ W}$). This has not only resulted in significant reduction in the operating cost, but also brought down the air conditioning load from 48 tons to 20 tons. VIT has also replaced 120 numbers of conventional machines in the library having a power rating of 180 W with as many numbers of “Thin clients” having power rating of only 33 W, thus, reducing the power requirement significantly.

- VIT has installed a total of 8 wastewater treatment plants having a total capacity of 47 lakh litres per day. The treated wastewater is used for watering the greeneries and flushing purpose. The wastewater treatment plant helps in conserving a total of 27 lakh litres of water per day.
- VIT has also installed a total 200 numbers of 12 Watts LED lights throughout the campus. Based up on the success of this pilot project VIT has already initiated to switch over from the usage of conventional lights to LED bulbs.

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