

**17.3.7 b – SDG7 Mapped with
National Assessment and
Accreditation Council (NAAC)
Criteria**

Year : 2019 – 20

Data submitted to NAAC as Annual Quality Assurance Report (AQAR) for the AY:2019-20

Percentage of power requirement of the University met by the renewable energy sources
<p>7.1.2 - Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:</p> <p>Solar Water Heater System A 100 liters' capacity SWHS can replace an electric geyser of 2 KW. 36500 Liters of SWHS can replace 365 numbers of geyser of 2 kW. For southern region, 800 – 900 units of electricity may be saved. Electrical energy can be saved 365 numbers of 100 liters × 820 units of electricity from 36500 SWHS 2,99,300 units/ year. 36500 liters of SWHS can save an amount / year Rs 23,94,400 /- Rs 24 Lakhs per year (approx.) 100 liters can prevent emission of up to 1.5 tons of CO2 Installed 36500 liters of SWHS system Prevent emission of CO2 365 numbers of 100 liters × 1.5 tons of CO2 547.5 tons of CO2 Percentage of power requirement of the University met by the renewable energy sources:38.6</p>

GIST from NAAC Self Study Report (SSR) - (2014 – 2019)

1.3.1 Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum

- ❖ The courses focusing on “Environmental Studies” is made mandatory across all disciplines, as per the guidelines of UGC.
- ❖ These courses are offered to create awareness among students on protection of natural resources, ecosystem and environment to avoid/ control natural disasters.
- ❖ “Green Design & Sustainability”, “Energy Conservation”, “Renewable Source of Energy” and other such courses are offered as core and elective courses to all students across discipline.
- ❖ Centre for Energy Research and Studies focuses on active research in the areas of renewable energy.

6.5.2 Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)

Three roof top solar power plants have been successfully installed and commissioned with a capacity of 550 KWp, which is 50% of the sanctioned energy demand of this institute.

7.1.3 Percentage of annual power requirement of the Institution met by the renewable energy sources

Answer : 50.1

7.1.3.1 Annual power requirement met by renewable energy sources (in KWH)

Answer: 1766949

7.1.3.2 Total annual power requirement (in KWH)

Answer: 3526846

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Answer: 81

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Answer: 248346

7.1.4.2 Annual lighting power requirement (in KWH)

Answer: 306600

7.1.5 Waste Management steps including:

- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Answer:

This institute is committed to follow a range of sustainable design features and practices in order to build and maintain, a green campus and to adopt "zero discharge".

Solid Waste Management (SWM) :

- ❖ It is practiced to convert the waste generated at the campus, by way of segregation as organic waste, recyclable waste, inert waste and converting the same into another usable form
- ❖ This Institute has received a certificate of Appreciation from "Green Services Trust" for implementing the SWM project in the campus, in an environment friendly manner and diverted 1,44,655 Kg of waste from landfill to recycling
- ❖ Every year this institute contributes waste papers towards national recycling initiative organized by ITC Ltd., (paper boards & specialty paper division) which is equivalent to saving 750 trees on an average
- ❖ The collected and segregated waste will be unloaded at the waste processing yard and processed through 15 staff called as 'Green friends'
- ❖ The waste generated at the campus will be processing as per SWM Rules 2016
- ❖ Bio-degradable waste is composted under windrow composing method
- ❖ Recyclable waste is further segregated and disposed through vendors on need basis
- ❖ Sanitary napkins waste is safely disposed using an incinerator fitted with wet scrubber for pollution control
- ❖ Food waste is fed in the bio-gas plant and is utilized for cooking purpose Several SWM training and awareness programs are conducted
- ❖ The harvested bio compost of 2000 kg (approx.) is used for gardening

Liquid Waste Management :

- ❖ 2 nos. of sewage treatment plants (STP) of 500 KLD capacity are available
- ❖ The sewage is characterized by presence of organic, inorganic and suspended solids
- ❖ The chain of treatment is aimed to remove such pollutants from the waste water so that it can be effectively reused
- ❖ The treatment system consists of preliminary, Primary and Secondary
- ❖ The Eco-Bio Bricks helps in the attachment of bacteria in the treatment system and helps in the better removal of organic content from the wastewater
- ❖ The STP is maintained regularly
- ❖ Treated water is used for landscaping and flushing purposes

- ❖ The physical, chemical and biological characteristics of the treated water are tested to ensure the efficiency
- ❖ Some of the important parameters checked include pH, solids, Chemical oxygen demand, Biochemical oxygen demand, Nitrates, chlorides etc.,

E-Waste Management :

- ❖ E-waste and hazardous waste are handed over to the authorized processors and certificate of destruction is obtained
- ❖ All obsolete electrical and electronic wastes are disposed as e-waste to vendors for proper destruction, without damaging the environment and certificates are obtained
- ❖ Electronic waste that are disposed includes Old TVs, computer monitors, printers, scanners, keyboards, mouse, , Radio, Phones, Fax, Photocopy machines, cables, Flip flops, memory chips, motherboard, compact discs, cartridges etc.,
- ❖ Ensured that generated e-wastes are not disposed, along with the other solid wastes generated
- ❖ GEMS recycling Pvt. Limited, Neervallur Village, Kancheepuram collects all the e-waste
- ❖ SOP is in place for handling the e-waste

NAAC Score obtained for the relevant metric on four-point scale is boxed.

